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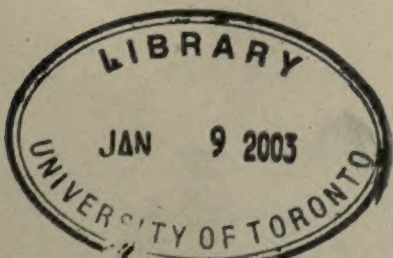
TORONTO, JANUARY, 1915

No. 1

Editorials

FIREPROOF DOORS AND WINDOWS FOR HOSPITALS

NOBODY, with any regard for the absolute safety of the patient, would think of building a hospital of more than one story in height, except of absolutely fire-proof construction. The last link in rendering these



buildings fireproof is the fireproofing of doors and windows. Since the practice of fireproofing these openings is so general in commercial buildings, why use anything else in hospital work? There are many American concerns ready to make any required type of fireproof door or window at a cost attractive to commercial interests.

The use of metal frames about doors is common practice at present. The best type of metal door frame is probably one made in Germany, a solid steel rolled section with invisible hinges, throwing the door clear of the opening. Many good types of heavy sheet steel frames are now on the market. The use of metal frames for doors and windows gives a permanent and perfect joint with the wall finish, and, being non-shrinkable, no cracks develop. The absolute adjustment of moving parts possible, and the freedom from shrinking and swelling, render the operation independent of the seasons. Solid and perfectly plain doors can be obtained in metal. These can be decorated with enamel or grained to any wood as desired, giving a similar finish to that seen in Pullman coaches. The use of metal for window frames leaves a larger glass and air area in a given masonry opening than can be accomplished with the ordinary wood finish.

A later type of window is made in three sashes, with the lower stationary as a wind break, and the upper two sliding past each other and operated by a ratchet, which does away with the weights. The Austral type, which has the upper part of the lower sash



opening in, and the lower part of the upper sash opening out, simultaneously, is made in steel. Any type of casement is readily made in steel, and the perfection of the work allows the window to swing in and still make a weatherproof job. If these sash are glazed with polished wire glass, the window is practically fireproof, and is so accepted by the fire underwriters. Most of these types are very handy for cleaning, and can be screened perfectly.

A most satisfactory door is one of hollow steel, of which the centre is composed of an inner casing of steel filled with asbestos. As to windows, one of the best is made of iron or bronze, which has been found, when equipped with wire glass, to withstand tremendous heat.

It would seem that the commercial advantages of using metal-filled openings in a permanent building of the high character required for hospital uses, would more than balance the increase in cost.

Most of these arguments are in addition to the question of fireproofing, which is in itself sufficiently important to cause the subject to be considered with great care by the hospital constructor.

The relief to the hospital superintendent, the board of trustees, the patients, their friends, the nurses, resident doctors and employees, to know that they are housed in a building rendered as nearly completely fireproof as possible cannot be overestimated.

It is a crime to build a hospital to-day that is not fireproof; and a mistake if fireproof windows and fireproof doors are not installed.

THE TREND OF THINGS

It is unquestionable that there is a slow but very sure movement toward centralization of hospital work, in all communities.

In the cities, hospitals are co-ordinating for various purposes, administrative and medical. Some have a common purchasing agent, others, an interchange of nurses, internes or even medical staff; others are grouping under one governing board.

It is gradually becoming recognized that the individualistic method of hospital conduct in the instance of public or general hospitals is archaic. In cities where a number of such institutions exist, petty competition and economic waste is the result; while in towns and country places, mediocre conditions, both medical and administrative, arising from lack of stimulus, are inevitable.

Osler recognized this in connection with the rural hospitals of England. He pointed out the need of enlarging the teaching and stimulative power of these, and the possibility of making them, during some part of the year at least, teaching centres for the rural practitioner. Sir Henry Burdett, the recognized English hospital authority, and one of the strongest supporters of the voluntary hospital system, which makes largely for individualistic autonomy, at the last meeting of the British Hospital Association, stated that there should be one great system of co-operation and inter-communication as regarded the British Hospitals.

In a recent issue of the Journal of the American Medical Association, Dr. Warbasse writes ably and entertainingly of the socialization of medicine. He unconsciously emphasizes for the American field Osler's views, when he says:

"As I look into the future I see communities divided into districts, each with a sanitarian responsible for its health. Each district should have a sanitary centre. Here should be a laboratory for diagnosis, equipped with all the appliances and facilities of modern science, with trained experts in every department. In connection with it should be a central hospital. An out-patient and an in-patient department should supplement one another. This should be a community centre, in which the problems for the prevention of disease should be worked out."

Dr. Warbasse believes that specialists in all branches should be located in hospitals placed at convenient intervals, that there should be a hospital in every community, as well as town, and that the number of hospitals should be regulated by the population and geography. The latter idea is a happy one, since it would at least eliminate the condition, not unknown in our midst, when a group of disgruntled doctors say: "Go to; we also will build a hospital, and the citizens and the Government shall support it for our advancement."

Dr. Warbasse looks to the socialization of all agencies making for public health, and to the removal of the physician from the field of commercial enterprise into that of the public servant. That the

general hospital should not be a commercial enterprise, he takes for granted. How largely it has unfortunately become so, he may not be aware.

But, until the ideal conditions to which our hospitals, in common with all the large medical and public health issues, are slowly evolving, are reached, we must work toward co-operation between local existing institutions, and the centralization and conservation of hospital forces. The hospital, however large and prosperous, that elects to stand alone, refusing co-operation or association with other local hospitals except on well-established ethical grounds—is out of harmony with the spirit of the age, and weak by the measure of its exclusiveness. There is no room for a spirit of jealousy or commercial rivalry in that hospital that measures up to the newer public standards.

THE PERSONAL FORCE

A MAN has only so much magnetizing force—or, if you prefer the phrase, personal influence—to give out. If stretched over too wide a territory it gets pretty thin.

It was a judge of the Juvenile court who made the remark in connection with the need of additional probation officers to effectually carry out the court parole and probation sentences among Detroit juvenile offenders.

The statement linked itself with one made to the writer by a staff physician, in discussing the social service department of a certain hospital. "If the

work is to be kept efficient, the personnel of the department must be changed frequently. No one becomes mechanical in service more quickly than the social service worker who is always on the job."

Reflection confirms the truth of the physician's statement. Service that has become a matter of mechanical routine ambushes all professional life; but there is no calling, except perhaps that of the professional evangelist, it is so quick to invade as that of the official social service worker.

The social service department of the hospital, when allied with the out-patient department, is looked upon as a valuable source of knowledge concerning local health and economic conditions, and in this connection routine is necessary. But for the achievement of its primary purpose, which we take to be the establishment of helpful friendly service from one individual to another, the official attitude, which seems a concomitant of all organized help, is most to be deplored. A few rare men there are in every community to whom it is given to bestow freely out of an apparently exhaustless personality whose source lies deep in the secret places of life. Yet even with these the drain eventually tells. There is a sudden failure of vitality—or, to change the symbolism—they burn out at high noon.

But the rank and file of us must subscribe to the dictum of the Detroit judge. If stretched over too wide a territory, our influence—which means our ability to help—becomes too diluted to be efficient. The fact is well established that human nature re-

sponds to the individual influence, and in degree according to the measure of strength with which it is exerted. The problem of life is the problem of intimate relationship, and the professional social service worker is weak by the degree of his or her professionalism. The truth is that the salaried office is an anomaly. The name belies its purpose. In essence it were as fitting to establish the office of paid professional friend.

Yet, in hospitals and other public places, some organized system of such work is essential. How shall this be kept free from the dry rot of a mechanical routine? Perhaps, as the physician suggests, by a frequent change of staff personnel. The average hospital social worker, who for three months, six months, a year, or more devotes herself daily to that outgiving of service and sympathy that the office implies, often finds at the end of one or other of these periods that her interest in the individual cases is waning, and her sympathy becoming forced or mechanical. She has less desire, and consequently less ability, to establish that intimate relationship between herself and the individual she would serve, that makes for success.

She, perhaps, finds herself content if her tabulated "results" for the monthly report which she is expected to make to the ladies' committee or the superintendent's office, shows a sufficient number of letters written for patients, young mothers married, employment found for men, and so forth.

A social service monthly report in connection with the out-patient department may be made statistically

valuable in many ways. Outside of that it is absurd. The best work—that of personality acting upon and influencing personality—can not be measured in words or expressed in figures.

When this force weakens, as it must if over-exercised, it is time for change of work or worker. Efficient social service needs spiritual powers, with the large view, the clear fresh atmosphere and the long patience that these provide. Only a few are fitted by nature for professional social service work, and these should frequently fall out and rest awhile. The remainder of us had better serve as we go.

Original Contributions

DOORS, WINDOWS AND FLOORS*

WILLIAM B. STRATTON.

Fellow American Institute of Architects.

Where so much attention is being given to the arrangement of hospitals, it seems a mistake to use any but the most efficient appliances and the best of materials. In selecting materials a statement of the conditions to be met at each point should be made and the materials available for obtaining the desired result should be used. I have found that local tradition in building matters and even hospital tradition in many cases, has kept the best solution from being reached.

I will give you a statement of what I consider the requirements as to desirable features in regard to doors, windows and floors. These are major details in the rooms used for the treatment of the sick. I will deal with the requirements of these details in wards and corridors and rooms directly adjacent.

Doors.—Doors should be of sufficient width for all possible traffic, should be easy to operate, perfectly plain, easily cleaned and hung in permanent frames that form the best joint with the adjoining materials. The frames should be of metal. A form of German manufacture is being much used in this country at present, consisting of a full rolled steel section with welded angles. There are also very good forms made of heavy sheet steel, rolled to the proper shapes. Both types are well anchored into the mason work of the wall and form a perfect joint with tile or plaster. Doors leading to work rooms through which there is much traffic, and in passing which the hands of the nurse are apt to be loaded with trays or utensils, should be double swing, with self-closing spring hinges. Many concerns are making very good plain, well veneered stock doors. These are preferable to those made by local contractors. They may be painted, enameled or left in the natural wood veneer. Metal

* Address (with discussion) delivered before the Canadian Hospital Association.

doors should be used in places where the temperature of the rooms on either side varies to any considerable degree. I prefer lever handles on the latches, as it is possible to open the door without actually grasping the handle. In rooms where infection is cared for, these handles can be lengthened so that they can be operated by the elbow.

Where screens are used on the hall side, I would recommend a short, light door, similar in all respects to the main door, but cut off at top and bottom to leave an air space.

Windows.—It is in the case of the window that tradition has held us most firmly to the old types.

The growing realization that fresh air bears such an important relation to successful treatment, leads us to prefer a type of window that gives the fullest opening possible, *i.e.*, one hundred per cent. of the window opening in place of the double hung sliding window now in such general use.

The problem of screening has much to do in deciding the type of window. The window should be easily reached for cleaning and easily operated and the glass should be in as large lights as possible. In our climate a large area of glass of single thickness produces an immense amount of cold radiation without in any way helping the ventilation of the room. This radiation may be overcome largely by having the lower sash made double, the inner sash hinged to the outer, with an air space between. The transom, which is much smaller in area, may be made of single glass. There are many points of advantage in a double system with a large air space between the sash, and there are many ingenious arrangements to allow ventilation without producing a direct draft. Two of these types are shown in the accompanying cuts.

Floors.—The floor should be selected with regard, first, to its imperviousness to moisture and germ life; second, its wearing qualities; third, ease of cleaning; fourth, its tendency to show dirt; fifth, color; sixth, warmth to touch and elasticity to tread.

Terrazzo is the most universally used and oldest material. It is made up of about equal areas of marble and cement, both of which are not impervious to moisture. Its color has pleasant possibilities and it is a pleasant floor to walk upon.

Tile combines most of the desirable features in a hospital floor. Its color, wearing and cleaning qualities are good. Criticisms are found in regard to its hardness and its inflexibility, but this can be overcome to a great extent by the wearing of rubber heels.

Battleship linoleum is quite extensively used and is pleasant in many regards, but retains the impression made by standing furniture and requires great care in the laying.

Wooden floors of teak, Georgia pine or oak may be used in many places to good advantage.

Cork tile has the advantage of being very pleasant to walk upon, and experiment has shown it to be impervious to germ life. Its color is against it and it shows tracking quite prominently.

A composition floor composed of sixty per cent. cork, called plastic linoleum, is being used to good advantage. It is warm to the touch, may be laid in various colors and is somewhat resilient. The possibility of covering the entire floor surface without a joint is generally considered as very desirable, and many materials now upon the market are being tried out.

The prospects are bright that some of these floors will stand the test of time and that the floor will be secured which will meet most of the requirements for hospital use.

I am aware that all will not reach the same conclusions, and that no material will be found which will be suitable under all conditions.

The constantly growing and changing conditions in hospital work quickly push into the background the decisions that we make to-day.

MR. STRATTON: Ladies and gentlemen, I am keenly alive to the contrast between my dry and specification-like talk and the warm and human element of the discussions which lent such charm and value to the morning session. Of course, this is a specification perhaps.

I have some diagrams of windows that I will show you. I drew these roughly, with a view of showing the different possibilities, that is different from our ordinary double hung sash, and we assure you that these windows work; sometimes our sliding windows do not. This is a curious contrivance I saw in

Berlin for operating a transom. This is about half size. It is a very cumbersome-looking thing.

(2) This is an arrangement showing a section or cut through a double window scheme. This is a small scale drawing looking at the full opening. The whole thing would be eight or ten feet high.

(3) This is a common germ tight with a transom and two tall casements. This casement opens in. The transom is hinged on the bottom, swings in, and the same arrangement here works a flexible rod in a tube and working a scissor arrangement. This one has the double sash; that is this is the sash, the main sash, and the inner sash is hinged directly on that. There are the two hinges that show the working of the window. That opens fully, the two sashes swing in from the sides.

(4) This is an arrangement showing the double window; this being the transom part and that the transom swinging in and the outside opposite transom swinging out. That allows the draft to go directly across, but it is a very good weather arrangement. It prevents the rain from beating in, even past the inside transom. I do not know the geography of this cut. I got it out of a Russian book and I could not read it.

(5) This is a type of window used in the Charing Cross Hospital in London in the Louise Ward. We were inquiring where this patent came from and found it was an American arrangement. Next I will show you the way it is given us in this country. There are any number of cross sides for transoms in line forming the whole window. They are all opened in as transoms in this manner, giving the full one hundred per cent. opening to the air the same as a casement window, and allowing full chance for screening. It is well arranged for painting.

(6) This is a banded window called the Austal window. You have probably seen examples of it. The window is pivoted, the lower sash is pivoted at the bottom, the upper side is pivoted at the top and slides down. When the window is shut you take hold of these handles, possibly about here, and pull in. That pulls on that arm, throws the top in and the bottom out. The bottom throws the top sash out and the top end throws the lower sash in. That can be screened, the upper sash being outside the screen and the lower sash inside. All of those types

that I have shown are perfectly good for screening. The sash that opens out is very hard to screen.

(7) This is the section of the steel door frame I have mentioned. Some patterns are even plainer than this. You will see by the age that it is a very stout roll section. These are welded together at the corners, forming complete three sides, and they have a cove at the base which follows all these sections here working in the tile or steel base or whatever you have. It is anchored very securely by straps out from this, and this particular model has a hinge, which allows the door to be thrown straight back in line with the door-jamb. Most hinges throw the door away out about two or three inches into the door opening and that little space there is a great saving.

(8) This is material called plastic linoleum. It is not so soft as linoleum, but in the three years they have used it they find very few faults. I do not know if they find any caused by the cracking movement below. Most of the cracks in tile and in marble come from breaking in the under surface, not in the material itself. Many materials have been condemned by the medical profession for faults that are not their own.

(9) Here is a tile that I saw used in Berlin in the operating room. I wish you would examine that. The foot gets a good grip. The ordinary tile gets pretty slippery. This may be harder to clean, but it can be cleaned, and the surgeons like it. (Applause.)

THE PRESIDENT: This paper is open for discussion.

DR. PARKE: Mr. Chairman, I think it is over four years ago since I asked a question of the American Hospital Association if anybody knew of a window that did not necessitate the removing of a double window in the spring and putting it up again in the fall, and which could be cleaned from the inside. There were no replies. I am glad to see somebody has been working since. Unfortunately in our institution these inventions had not been made, or we had not seen them, so we had to start to work and work out a little plan of our own. We have a window that we hope is going to work satisfactorily. It has the advantage of sliding up and down in the ordinary English style. It does not need taking out in the spring or putting back in the fall. It can be cleaned by the cleaner standing on the floor of the room

inside, all except a little transom at the top, that can be cleaned from the inside by getting on a ladder. He has not to get out on the sill or be held by a rope to clean the windows. We had a little trouble in arranging fly screens, but after about fourteen different screen men had worked on it we got screens that worked. I do not want to say too much about these windows. I know that in all these things it is the second or third year that is going to tell whether they are practical or not. In a large hospital like this the matter of putting up double windows and the matter of cleaning the windows on the outside is a very big expense. We have a rather large corridor, which we call "The Bridge of Sighs," and our man figured out that every time we cleaned the windows on that bridge it cost us ten dollars. You will find it is a pretty big bill. I see you have here a type of door that we have in one part of our hospital, and which we found with very little dampness on the floor, such as the spilling of a pail of water, by accident, of course, and not being quickly wiped up, in a very short time that commenced to split at the bottom. Second, who is handling that plastic flooring; where could it be got at?

MR. STRATTON: The name of the maker is on those blocks down there. I forget the address. In Chicago, in Marcus Risch's Hospital they are using casement windows single casement. That is a pretty severe climate there. They open out with a rather complicated fixing.

DR. PARKE: I should have said, of course, that our windows are double glass and slide up and down like an English window, and can be swung in and out. If you get an arrangement that is all complicated, by the time that the nurse has served her second or third year she knows how to work it. These windows are worked like the rest, so she knows what to do with them.

DR. DONALD ROBERTSON: No reference was made to operating room windows, whether skylights are necessary or whether double windows are needed.

MR. STRATTON: I have seen a great many operating rooms, and some are single and some are double, and some have very elaborate heating arrangements next the glass, and some have none, and they are all very satisfactory, so far as I can find, to

those who are using them. That is one of my troubles, to find out what they want.

THE PRESIDENT: I remember seeing a window—I think it is in Longue Pointe Asylum—that swings on a hinge that opens in that way. I do not know whether it has any special advantages or not. Someone was speaking of a window that swung out. Now, in a case of that kind, what would you do in the matter of screening?

DR. PARKE: I said that was our only difficulty. The difficulty arose about the screen, but we overcame that difficulty. If anybody is interested in windows I will talk to them by the hour. At the Longue Pointe Asylum—I think I was with you—the trouble is if it is not weather-proof. It is all right as to being easily opened, easy to operate, but not as to being easily weather-proofed.

THE RELATION OF THE HOSPITAL FOR MENTAL DISEASES TO THE COMMUNITY*

By E. H. YOUNG, M.B.,

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of Psychiatry, Queen's University, Kingston, Ont.

The subject of Mental Disease has always been a source of anxious interest and curiosity to both the cultured and the general public. But if the interest and curiosity are great, the difficulty of obtaining a clear conception of the numerous perplexing problems to be solved, and the means by which this end may be accomplished is even greater; as a result this field of scientific enquiry is the one most dominated by unreasonable prejudices.

* Read before the meeting of the Kingston Medical and Surgical Society, at Rockwood Hospital.

It is useless to disguise the fact that, even to-day, psychiatry is, as a science and art of medicine, very young. The efficiency of its curative measures is in many ways behind that found in other branches of medicine. A great Italian scientist says that psychiatry is one of the noblest of sciences, but one of the humblest of arts. Our efforts towards eliminating the direct causes of insanity are very limited, because of insufficient knowledge of the mechanism of its pathogenesis, and only persistent, conscientious investigations in laboratory and clinic will overcome this deficiency; such knowledge as we have, for example, in mental disorders due to trauma, syphilis, exogenous intoxications and abnormalities of internal secretions is fully appreciated and applied in the various Hospitals for the Insane in this province.

Fortunately therapeutic agencies are not limited to those which cure by eliminating the cause of the disease. Many mental diseases are curable spontaneously through the adaptive properties of the body, provided the development of the curative process, and the patient's life are not endangered by the excessive action of certain collateral symptoms, such as exhausting motor restlessness, insomnia, abstinence from food, suicide, secondary infections, etc. In such cases the usual well-known remedies directed towards counteracting the symptoms, tide individuals through afflictions which are curable spontaneously, and thus render possible a return to normal mental life.

This summary will serve to show how limited is the work of the psychiatrist in connection with the morbid process and its consequences; the results obtained, however, are sufficient to disprove the pessimistic statement of some, that the application of therapeutic measures in mental disease is always a hopeless task. Moreover, it will be seen that the indirect service which this science can render in practice is much more extensive. To one engaged in practical efforts for human betterment it is instinctive that knowledge should be applied. If the causes of certain forms of insanity are now known, if certain forms of treatment can influence mental disease, it admits of

no argument that in so far as these are within human control, a serious effort should be made to make the fullest possible use of such knowledge.

From this point of view it is unfortunate that the transfer to a suitable hospital removes the sufferer afflicted with mental illness from the observation of the community. The lessons which would be learned by each community, if its insane were cared for in its own sight, so to speak, would be exceedingly valuable; it would learn, for instance, that a large percentage of such patients are practically harmless, that mental diseases differ much in degree and kind, that they can be influenced favorably by appropriate treatment, and there would be a readier and fuller appreciation of any new light thrown by science upon the origin, nature, curability and prevention of insanity.

The improved recovery rate has had the effect of increasing public confidence in the administration of these institutions, and there is evidence of a readier disposition on the part of the medical profession and the public, to turn to them for help and counsel in all matters pertaining to mental medicine. One of the strangest chapters amongst the stories and traditions which make up the gossip of every hamlet is that about the man who "went crazy and had to be taken to the asylum," and if such a one later is returned to his home and to industrial efficiency, the event is looked upon as little short of the miraculous. Such a patient is the best possible agent for dissipating the hostility and mistrust of his community towards asylums. The treatment of such cases in their own homes by nurses trained in these hospitals contributes to the same end. Public addresses, articles in the press by experienced alienists, and the readier accessibility of the hospitals to the patients' friends, are other factors tending to bring the public into closer contact with the problems of insanity.

There are mental diseases which would shortly disappear could the interest of society be sufficiently directed towards them, and timely measures adopted. General paresis is one of the most deadly diseases; it attacks adults in the full vigor of life, individuals strong in body and mind, and who as a rule have reached the highest point of their social activity. The

remote cause of progressive paralysis is syphilis, which is closely associated with prostitution, and therefore all remedies directed against the social evil also strike a blow against paresis. In this connection I cannot do better than quote Adami:—"With a fuller realization of the frequency of these congenital (venereal) diseases, of the havoc these are playing upon individual lives, the misery, ill-health and ruin that they inflict, with the surer recognition of the presence and after-effects of what euphemistically we speak of as the contagious diseases, brought about by more exact methods of diagnosis, such as the Wassermann reaction, and the actual recognition under the microscope of the gonococcus and the spirochaeta pallida, we have during the last decade more especially, come to a realization of the hideous frequency of these diseases, and their ill-effects upon the innocent of the second generation. When it is accepted that at least half of gynecological practice is due to gonorrhea and its results; that a large proportion of the cases of infantile blindness is of gonorrheal origin; that, as demonstrated by the Wassermann test, practically all these cases of locomotor ataxia, and nearly all cases of general paralysis of the insane are of syphilitic origin; when we know that most cases of multiple successive abortions are syphilitic, and recognize the puny miserable parodies of humanity doomed in most instances to an early death, that too often are the result of syphilitic disease in the parent; when we realize the preventable ills that follow in the train of these venereal diseases, I wholly agree that the time has come when we should no longer refer to these matters by circumlocution, when for the good of the coming generations we should openly wage war against gonorrhea and syphilis, and above all should, for the safety and welfare of our children, instruct them as to the dangers they must ward against, not merely on account of their own health and happiness, but for the sake of the generations yet unborn."

The group of psychoses collectively known as alcoholic insanities are directly traceable to alcoholism. In many others alcohol may be a contributing cause by diminishing the resistance of the brain to harmful external influences. There can be no doubt that all successful efforts to restrain the evil of intemperance, whether these take the form of improved social

conditions, legislative enactments or educational propaganda, will result in a corresponding lessening of the incidence of insanity. Many patients are annually brought to the doors of our asylums through the excessive use of morphine, cocaine and patent medicines containing habit-forming drugs. To prevent this exploitation of the weakness of human beings for profit, the most drastic prohibitions, and the most deterrent penalties can be justified on the ground of social defence and prevention.

The infantile cerebropathies are to a considerable extent the result of parental alcoholism and syphilis. But far more frequently the infections which arise in the first years of life, from filth, neglect and unsuitable alimentation, are the determining factors in producing the crowd of idiots, imbeciles and epileptics which encumber our public institutions and drain the resources of our public charities. Wherever measures favoring maternal feeding and providing the knowledge and means for carrying out scientific methods of artificial feeding have been adopted, there has been effected not only a notable reduction in the infantile mortality, but along with this, a diminution in the number of children physically and mentally deformed from the earliest infancy.

Another group of insanities, the acute confusional psychoses are traceable to infections, exhaustion, overwork, auto-intoxications, abnormal puerperal or lactational conditions, etc. It is obvious that vast numbers of these are due to preventable causes.

Certain other forms of insanity are supposed to owe their origin almost entirely to psychic causes. The opinion is held by eminent alienists that these causes can be counteracted by adopting methods of education suitable to the individual, and by the cultivation of correct habits of thought. Dementia precox is by far the most frequent of all mental diseases which afflict the young. It is the "White Plague" of psychiatry, once established it is incurable, and unless proper treatment is instituted in the earliest stages irreparable dementia results. Within the past few years authoritative articles have appeared describing the early symptoms of this scourge, the ominous symptoms of its approach and also the characteristic mental make-up of the child foredoomed to develop the disease. Com-

petent advice as to its prophylaxis has been given; heedless of these warnings parents, after transmitting to their children psychopathic taint, allow them to drift at haphazard into unsuitable vocations and educational courses with utter disregard of the nature of their psychical capital. Hence, instead of the satisfaction and mental enrichment which accrues when one is brought to the place where his best energies may be unfolded, they meet only the long-continued irritation of dissatisfaction, mental depression and discouragement which is the inevitable result of maladjustment of personality to vocation and environment, and which is one of the most potent factors in the production of the mental sclerosis of dementia precox. No system of medical inspection of schools in any large municipality is complete without the services of an expert psychiatrist, to whom the neurotic child can be referred for educational and vocational guidance, based on an analysis of his inner attitudes and proclivities—his psychical make-up.

The spectre of morbid heredity plays an important but secondary role as a cause of mental disorder, and its range is much more restricted than is usually supposed. In the vast majority of cases one does not inherit insanity, but merely mental instability—a tendency towards insanity, which may lie dormant so long as the individual conserves his bodily health, indulges in healthful and temperate habits, and avoids unnecessary emotional strain. It is for the psychiatrist to anticipate the effects of evil heredity by advice as to the management of neurotic children, their education, their amusements and pursuits; thus much can be done to save them from the effects of the inherited weakness.

Generally speaking it may be said that every effort for improvement in the general public health, the control of infectious diseases, the securing of healthful conditions in home and school, in street and factory, all reforms in educational methods, every principle which tends to regulate social conditions and render them less harsh—in short all progress in civilization is a means of preventing insanity.

These being some of the causes of insanity, by what means shall this knowledge find its fullest possible application? There is a striking similarity between the position of tuber-

culosis of a few years ago, and that of mental diseases at the present time. A movement for the prevention of any disease should be similar to that which has been so successful in the prevention of tuberculosis. Two distinct lines of action must be instituted; one, the education of the physician in methods of early recognition and treatment; the other, the education of the public as to the origin and modes of prevention of the disease.

Special hospitals separate from our large provincial hospitals to which any person can be taken unobtrusively for advice as to peculiarities of mental habits and other ominous symptoms of incipient mental disorder, undoubtedly constitute the best specific agency for the early detection and treatment of such diseases. At present these medical outposts do not exist in Ontario, and therefore their function must be performed by the existing institutions. Each of the three medical schools in Ontario is affiliated, for purposes of clinical and didactic instruction in psychiatry, with one of the hospitals for mental diseases, the course is now obligatory, and is sufficiently extensive to insure a fair knowledge of the subject on the part of all graduates. Provision is being made for the admission of voluntary patients, and "out-patients" are encouraged to come to the hospital to receive advice free of charge. At Rockwood Hospital it has been the practice to invite the examining physicians to attend the staff conferences at which their cases are presented, but interest is hard to arouse, and in only a few instances has the invitation been accepted. It has, therefore, been arranged that one of the hospital staff give an address on the work of the institution at each medical centre in the district. Although we have covered only half our territory already beneficial results are seen in increased interest in the hospital by the medical men, and by many new applications for entrance to our Nurses' Training School.

The movement for popular education as to the causes and modes of prevention of insanity proceeds upon the perfectly safe assumption that the public is unreasonable only when it is uninformed—that if people generally understand the facts, they will, to a considerable extent, adjust their lives accordingly. As one factor in this educational campaign the Com-

mittee on Mental Hygiene of the New York State Charities Aid Association has prepared suitable pamphlets which are being distributed through every form of organization willing to assist. The newspapers are being supplied from time to time with material stating and restating the essential facts, and the medical officers of the various State hospitals are co-operating with the Society in arranging public meetings at which appropriate subjects are discussed. I believe that the time is ripe when a similar campaign should be inaugurated in Canada; if psychiatry is to take its proper place as a part of preventive medicine, this matter should not be left to the sporadic efforts of individual hospitals, but should be systematically organized and directed by a strong central committee. It appears to me that the Canadian Public Health Association might widen its range of usefulness by including mental hygiene amongst the branches of public health which it is promoting.

An important link between the hospital for mental diseases and the community remains to be described. Every alienist deplores the high percentage of cases which suffer from a recurrence of their malady soon after they are discharged apparently convalescent; after wasting the physicians' time and skill and the hospital's expense for months many patients return as ill as before. A well-known alienist disputes our record showing an annually increasing number of recoveries, claiming that our institutions are being filled with their own discharges. The fact is that in these cases the mental breakdown is but a symptom of certain conditions in the patient's environment, which the physician has failed to take into account, and which baffle his science and nullify his best efforts. Dr. Richard Cabot says that the average physician is used to seeing his patients flash by him like shooting stars, out of darkness into darkness. Maladjustment to home conditions, monotony, isolation, worry, overwork or lack of work, poverty, insufficient food, cheerless or insanitary surroundings, unhygienic habits—these are some of the problems which must be uncovered and solved; our patients must receive social, as well as therapeutic remedies, if the hospital's work is to be carried to effective completeness. The General Hospitals inaugurated a social service department to meet this problem; begun in 1905, in connection with the

Massachusetts General Hospital, the movement has already spread to all large general hospitals on this continent. Several of the State hospitals in the United States have also established similar departments, but only in connection with their out-door department.

Believing that an organized system of social service would materially increase its usefulness, the staff of Rockwood Hospital determined to adopt the general hospital scheme in its entirety. Since the beginning of this year one of our head nurses has been acting as field worker, visiting the homes of newly-admitted and recently-discharged patients in the vicinity of the institution; she examines and reports as to the condition under which the patient has been or is living, and, where necessary, assists the patient to remedy any conditions which predispose to illness. In order to accomplish this it is necessary to make the fullest use of the various social and economic resources of the community. It is too soon yet to consult our records for definite results of this scheme, but it appears so promising that we believe its introduction marks an important epoch in the evolution of this institution. The visits of the nurse are an important factor in removing the dread of the public towards "asylums." On account of the extra supervision, the necessary period of residence in the hospital can be curtailed, and the patient leaves the hospital with greater confidence when told that the nurse will visit him. It also enables us to continue treatment in the home of the patient, and our knowledge of the cause of the illness and the results of the treatment will be much more reliable and definite than ever before, and we believe that by this means the number of re-admissions will be greatly diminished.

From the foregoing general outline I trust that it has been made sufficiently clear that psychiatry in practice cannot be reduced to the simple study of the insane, and the manifestations of insanity; such a study is necessary, but by itself ineffectual and sterile. There is no doubt that all sciences have a reciprocal connection, and each advances by taking advantage of the progress made by others. Psychiatry, more than any other science, presents numerous faces at which it comes into intimate contact with other physical, social and moral sciences;

on all of these it imposes its special problems, from all it requests its special data. Therefore the alienist must, as much as his individual capacity permits, take an active part in the cultivation of neighboring fields of work in order to further the progress of his own. Until the psychiatrist awakes to the need of a close co-operation with those other agencies whose specific work it is to achieve the physical, social and moral betterment of mankind, his own efforts to stem the tide of mental diseases will be of little avail.

Some years of cordial co-operation with men and women who are striving to improve our public institutions for the care of the sick and dependent have given me a deep reverence for their nobility of spirit and the excellence of their achievement in ameliorating the distress of sickness, poverty and social maladjustment. Yet my experience compels the conclusion that, until they evolve some means of uncovering and modifying the social background of disease, until they devise a method of reaching the sick before their condition becomes hopeless, and until they adopt measures for carrying their educative influence beyond the narrow institutional walls into the homes of the people, our hospitals must stand as an expression of our good intention rather than of our business foresight or scientific acumen.

THE PREVENTION OF NOISE IN HOSPITALS FOR THE INSANE

By ELIZABETH MILLS.

Head Nurse, Rockwood Hospital, Kingston.

The diminution of noise in hospitals for the insane is a very important and practical problem, which goes to the root of many of the difficulties encountered in the management of the insane. It is universally accepted that, in institutions for the sick, the amount of noise should be reduced to a minimum, and the extent to which this has been accomplished may be taken as an index of the good management of the hospital. The difference between the state of the mad-houses of the past and

of the mental hospitals of the present day is largely the result of better methods for securing that quietness which is indispensable for the successful treatment of patients.

Since a consideration of prevention is inseparable from that of causation, our starting point is clearly indicated. Conditions vary greatly in different institutions, but there are several general principles applicable to all hospitals for the insane, and we shall refer to several specific factors to the breaking of that peace which should be characteristic of the institutions under our charge.

Much of the quiet of an institution depends on its site, construction and equipment. Fortunately the Hospitals for the Insane in this Province are located at a sufficient distance from the roar of traffic and factory to avoid disturbance from that source. On the other hand many of the hospitals were built long before hospital architecture had reached its present development as a science and an art and consequently necessarily lack some of the recent improvements which are found in the newest General Hospitals. Floors can now be laid so as to be non-conductive of sound, doors hung with noiseless automatic checks and springs, windows are made to glide smoothly on ball bearing pulleys, and walls are constructed to confine sound to their own enclosures, dining-rooms and pantries are sufficiently distant from the main ward to render the rattling of dishes inaudible, the constant and irritating patter of many feet on hardwood floors is abolished by runners of battleship linoleum. An annoyance of which nervous patients complain is the constant ringing of bells connected with the telephone and food hoist and the ward door; these should be replaced, as has been done in General Hospitals, by the silent electric light signal system; the use of bells and steam whistles being restricted to emergency alarms. Even in an old building much can be accomplished by rearrangement of its services and careful training of the staff.

Of all individuals connected with the hospital none can do more to disturb its peace than the nurses, therefore it is of the utmost importance that only capable, conscientious women should be chosen to fill the ranks of the nursing staff. In hospitals for the insane, patients have to depend chiefly on

the nurses for sane companionship, and therefore the general intelligence and natural disposition of the latter, supplemented by their conception of duty and knowledge of nursing, determine in large measure the curative atmosphere by which the patients are surrounded during the whole of their hospital residence. Superintendents should weed out all those who show a lack of sound, sensible, dependable qualities during their probationary days, and those who persist in disturbing the wards by foolish talking and frivolous conduct show a glaring want of consideration for their patients, and the sooner the hospital is rid of them the better for all concerned.

The whole secret of the success of non-restraint methods in the management of the class with which we are dealing consists in preventing or avoiding situations where restraint may be necessary. Those who fear that the insane will take advantage of the milder methods of treatment little appreciate the power, well poised, properly taught, expert nurses can exercise by mental suggestion, calm persuasion and innocent artifice. Ward disorders can be more easily prevented by the judicious words of a quiet, self-possessed, gentle-toned nurse than by the threats and stormy commands of a ferocious keeper. It is because women nurses know that they cannot command effectual physical means to control their patients that they exhibit less show of force and avoid threats, and it is on this account also that they manage patients of the male wards with less irritation and fewer outbreaks than occur when male attendants are in charge.

It cannot be too deeply impressed on our nurses that noisiness in an institution for the insane is as infectious as measles; they should be taught to handle keys, dishes, doors and furniture gently and quietly; they should wear rubber heels and cultivate a noiseless tread; they should understand the necessity of promptly answering the telephone, door and waiter bells. Scolding or threatening defeats its own purpose and shouting commands to patients or fellow-nurses is inexcusable; therefore nurses should early form the habit of speaking lowly and distinctly. Example is more important than precept, so if the head nurse is negligent she need not wonder if her pupil nurses regard this form of "voice culture" lightly.

One of the chief causes of disturbance in a hospital is mental excitement of the patients. This excitement may be either of two kinds; there is, on the one hand, the mental excitement due directly to disease as of the person suffering from the delirium of an acute toxic psychosis; this is an *essential* excitement due to some abnormal stimulus arising within the patient's body; in many cases no stimuli from without reach the patient's consciousness; it is therefore amenable only to treatment which has an effect on the disease itself. Obviously the control of such forms of excitement must be left to the medical officers, the nurse's only duty being to report its occurrence immediately, and execute the physician's orders. Such cases are comparatively rare; in fact in an institution of the size of Rockwood Hospital not more than six cases coming within this category can be found on our wards at any one time.

There is, on the other hand, the mental excitement which is a reaction to some irritation in the environment acting on excitable patients; this may be called *non-essential* excitement: it is temporary and paroxysmal in character and naturally subsides with the removal of the irritation. It is this preventable excitement which causes by far the greater portion of the disturbance in our wards and its prevention and control devolve, chiefly, not on the medical officers, but on the nursing staff. Obviously the only means of controlling this kind of excitement is the discovery and removal of the source of the irritation. If a well-directed attempt be made to grapple with this problem it will test to the utmost the originality, resource and powers of observation of the mental nurse; however, the reward is great and the benefits follow so speedily that the relationship between cause and effect are obvious to all.

The sources of avoidable irritation to patients are innumerable, but these may be markedly lessened by applying the methods outlined above. Patients in advanced dementia, like infants, when restless and troublesome are usually suffering from some bodily discomfort; we have known such patients become quiet after the relief of distended bladder or rectum, the extraction of decayed stumps of teeth, the removal of an

in-grown toe-nail, or surgical attention to a suppurating ear. Night nurses have maintained quietness by giving a drink of warm milk, a soda biscuit, a little tobacco or even a rag doll to their charges. Numerous other ways of sparing the feelings of excitable patients, sheltering them from irritating stimuli, will occur to any thoughtful nurse who studies the habits and environment of her patients.

It must not be forgotten that sometimes the noise made by patients is simply pent up energy finding an outlet. All nurses notice how much more excitable patients are on Sundays, holidays and rainy days; this is because the usual amount of occupation cannot be arranged for at such times. Provision should be made for carefully graded amounts of bodily and mental exercise for every suitable patient; if possible this should be given out of doors, on verandahs, in sun-rooms, tents or under shady trees on the hospital lawns. Even in the case of the physically weak and infirm, whose bodies must remain inactive, it is well to furnish some diversion such as reading or narrating stories, making picture books, playing cards, or even doing kindergarten work. Much is lacking in the endeavors of any nurse if a number of listless and unemployed patients are a customary sight in her ward.

Every noisily excited patient should at once, without a moment's delay, be removed to a room where she cannot disturb her fellow-patients. In the construction of any institution for the mentally deranged architectural provision should be made upon every ward for a partially isolated room to which an excited patient can come, accompanied by one or more nurses who can administer suitable treatment until calmness returns and the danger of inflaming the excitability of others is past. However, this is not to be construed as a defence of the pernicious practice of "secluding" patients behind locked doors. At the first sign of disturbance a night nurse should take energetic steps to check it; if the noise is allowed to continue, the other patients will be aroused and soon not even the whole night staff is sufficient to give individual attention; then sleep—the best of all tonics for the mentally deranged—is needlessly lost.

Though cognizant of our inability to attain perfection, and to secure the entire abolition of noise in our hospitals, it is not unreasonable to think that we may approach closer and closer to that ideal. Experience has convinced me that by a thorough application of the means indicated above, by an unceasing vigilance in checking troublesome and disorderly tendencies before they have formed into habits, and by the persevering pursuit of the policy of re-educating our unrecovered patients in the ways of decency and good order, we shall be able to cut off disorder at the source of supply, and transform the atmosphere in our hospitals for the insane from one of ceaseless confusion and disorder to one of calmness and repose wherein even the most fastidious neurasthenic will be unable to find a source of irritation.

Society Proceedings

AMERICAN HOSPITAL ASSOCIATION

(Continued from December issue.)

CHAIRMAN: May I ask Mr. Davis to take the chair?
Mr. Davis in the chair.

Dr. WARNER: That is a question I am greatly interested in, and I take the floor so that I will not abuse the privilege of the chair. As I first began my work in the dispensary, the question of dispensary abuse was vital in Cleveland. It had to be met, otherwise the hospital would be placed in a bad position before the community. We met it as best we could. We met it, first, as Dr. Babcock explained, by placing at the admitting desk an officer, a social worker to investigate the case, and one who could decide the question from the standpoint of the social condition of the patient. That was the question on admission: "Were the social conditions of the patients such that they needed help to furnish themselves all and the exact kind of medical attendance which they needed?" Not, "Could they pay the doctor for a little?" but, "Could they

pay the doctor for all that they required?" Often a case comes in for a simple cough, and the patient can pay for the treatment needed, but if the same man were to come in with a cough that had lasted six weeks, or come in showing evidence of tuberculous infection, that man cannot pay for the care and treatment that is required. We made a classification that we might take into the dispensary only cases requiring such treatment as the patients could not pay for, and keep out of the dispensary all treatment that the patients could pay for, and we have four classes: Class "A," which means that that patient's social condition is such that he cannot pay for any medical treatment and he is given any treatment indicated. Class "B," which means that that patient to-day is out of a job, he can pay for nothing, but he is a man who, when he has a position, can pay. He is treated, cured of the trouble for which he is admitted, then his card is no longer of any use to him. It is a temporary admission. We made Class "C" for those who can pay small doctor bills for themselves or family, but cannot pay for longer treatments, or for treatment for a serious condition requiring that they be long from their work. Those cases get card plainly marked Class "C." If Class "C" patient comes in because of minor ailments they are referred to an outside doctor. That same case may come in for something that they cannot pay for, as, for instance, eye troubles; and they are then treated. Then we run the other classification, "D," which is pure consultation, and the patient always referred back.

Now the principle on which all those classifications operate is, that we aim to give to people what they cannot pay for, and keep them out of the dispensary for what they can pay for. Your reply indicated that you thought it worked the other way. It does not. We classify them, and admit special cases for special reasons, so that we do not pauperize, and so that we do not take from any physician any work that he can do, and for which that patient can pay.

DR. BABCOCK: I should like to ask Dr. Warner if he makes a special charge for the out-patient department for diagnostic work?

DR. WARNER: No, and yes. When an ordinary Class "A" case comes to the X-ray room, if they have ten cents, they pay it. A Class "B" case will come to the X-ray room, and if they can show up a quarter, or anything up to a quarter, they will pay it. But a Class "D" case, which is there for consultation, pays the cost of that case in full, pays one or two dollars. They cannot pay the ordinary fees for such work, but they pay what they can.

MR. BARTINE: I cannot understand where Class "D" will meet with the approval of the State Board. Where that patient can pay the doctor his regular fee, and can come to your hospital and pay you a fairly good-sized fee for an examination, why couldn't he go to another doctor and pay that doctor, instead of going to the dispensary? I cannot quite understand how the State laws would permit you to make charges when you speak of Class "D."

DR. WARNER: I do not know what State law you refer to, we have none on the subject in Ohio, but in answer to the question, we have no place in Ohio where a man can go and get an X-ray for one to two dollars. If he does not come to a dispensary, he has no alternatives other than go without the X-ray, or go to the commercial men, and there he will find the minimum charge to be ten dollars. There is no laboratory in Cleveland where a man can go and get a Wassermann test for less than ten dollars. There is no place where he can get a blood-count for less than five dollars. If he were to go to the commercial X-ray plant, and pay their fee, he would not have anything left to pay his family doctor for the next month; and we feel that it is the family doctor who needs protection, the man who has to get into his machine or buggy and actually go to the house; we feel that that man ought to be paid in preference to the specialist. The X-ray man is spending money in every case, and he ought to be paid, if he does the work and spends the money; but if the X-ray man is paid, the doctor cannot be paid. If the patient is able to pay both the X-ray man and his physician, he is refused admission to Class "D." Class "D" patients are investigated just as carefully for admission as Class "A."

CHAIRMAN: Are there any other dispensaries represented here, who have any similar classifications to admit patients on the basis Dr. Warner speaks of, for consultation only?

DR. WILSON: I want to ask a question. I have not a dispensary. I want to ask Dr. Warner a question. Supposing a case comes in from a family physician where palpably the treatment he has been receiving is wrong, what happens?

DR. WARNER: In meeting a very vicious, vindictive and unreasonable "dispensary abuse," complaints and problems. I have found that that is the hardest situation to handle. I faced it squarely before the Cleveland Academy in this way. The Academy protested against our referring applicants found able to pay a doctor a fee to our staff members, minor or major, and suggested as a substitute that I hand out to that patient a printed list of the Academy members drawn up according to sections of the city. They said they would pay for the lists. I thanked them, and said that I would use every one that they made out. I was soon asked why I was willing to use it. Some got suspicious that there must be something behind this willingness. I told them that the lists would be useful, very useful indeed; that I was willing to refer those patients to lists of members of the Academy, but I would reserve the right to mark off from that list any man that I found incompetent or maltreating a poor person in the city of Cleveland. The lists have never come to me.

It is always a hard, hard problem, and I insist that every one of those cases come direct to me. The head of the social service department settles all cases of routine, admission. She is competent to judge the social condition of the patient, but if it is a question of taking the patient away from an incompetent or dishonest physician, it comes to me, and I have taken the position that it is my duty to see, as far as I am able, that the poor people of Cleveland get a square, proper deal, and I am doing that. It requires at times that I must take a patient from one physician and send him to another. But I make notes of the condition, and anybody that wants to stir up trouble over my doing so can get it, any day, anywhere.

The question Dr. Babcock brought up on the complaints, "dispensary abuse," I have handled in much the same way. I sent to the Academy of Medicine, with a caustic comment, one doctor's written complaint, that our maternity dispensary had taken two particular patients from him, giving names, dates

and addresses. I sent with this letter the names of all tenants at these addresses for five years back, and the names and addresses of the midwives who delivered the only two children born at these addresses in these five years. No one at these addresses had ever heard of the doctor making the complaint, and they have the evidence which I was able to produce in writing. The Academy had it published in the *Cleveland Medical Journal*, with all names included. That is the last complaint which I have received in writing against dispensary abuse that was not clearly an error on somebody's part, and it is the last complaint which has come to me in a complaining spirit from a practicing physician. In the last year and a half the attitude toward the dispensary has changed materially, and I can say that the physicians themselves are now coming to me and saying that the dispensary is now of some value to them. I mean the physicians practising among the poorer classes of people. It does not steal the work that they can do, and it helps them out in a hard case.

MR. SHILLADY: I want to say that in my own experience, while in Buffalo, I thought it was necessary and advisable to organize a trust, a union of men, in an organization, in fact there were seventy-four unions, and I undertook to be the adviser of these organizations as to what was the best thing to do for their members individually; and after that, to do as public citizens to help us in the tuberculosis campaign, knowing that the physicians were glad to send them, or quite willing to send them to a physician to diagnose their case, and I took it upon myself. I thought, like Dr. Warner, that it was up to me to take action in many of those cases.

Now, in that experience, I met in many cases with men who had spent considerable sums of money, and many of them were being treated for everything under the sun except for tuberculosis, and some of them died. It suggests what one physician did, inadvertently. He sent a notice of death in to the Bureau of Vital Statistics, and when it came to the blank line, giving the cause of death, he put his own name down, and I have not the slightest doubt that that was the real cause of death.

I think that the question of amount of dispensary abuse is altogether exaggerated. That abuse is likely to be at the other

end, that the people who have a right to a proper diagnosis are not likely to abuse the privilege. It seems to me that if there is a considerable amount of dispensary abuse, it is quite likely due to the lack of dispensary organization through any individual dispensary or collection of dispensaries in the city.

As most of you know, in New York we have had for some time an association of tuberculosis organizations, and recently we formed an association of general out-patient clinics. We have a small number in New York, and a smaller number in Brooklyn, and these are working out the problems included in out-patient departments, private hospitals, and so on, and all those work in very cordial co-operation, I think with the minimum of jealousy, which is always to be found in organizations of this kind. I think that is very much minimized, owing very largely, in my judgment, to the fact that the public institutions co-operate fully and freely with the private institutions. They have districted the city, and when a patient moves from one district to another he gets an exchange card, and the records are kept in such a way that some particular person knows just what that patient's resources are, and the social service investigations, of course, are made, as Dr. Babcock says they are made in Detroit. It seems to me that it is quite a simple thing, that these investigations ought to be made, not from the point of view of preventing an abuse, though they incidentally have that effect, but they have the far greater effect of probably resulting in adequate treatment.

Then, I think, more fundamental than all in this whole question is, that we are coming to the time, whether the medical profession sees it or not, when the private practitioner is going to be less and less a factor in the treatment of people suffering from disease and requiring different kinds of tests. All business is being organized; it seems to me we are going to provide in the out-patient department and dispensaries the facilities which the poor will need, in co-operation with their physicians, which they will have to have if they are going to treat disease. The private physician, regardless of ability, has not within himself the resource to meet the different conditions that confront him in the different individuals. Though he has the diagnostic skill, he himself cannot be familiar with, or may not

be sufficiently familiar with, all the resources, both medical and physical, which are at the command of the dispensaries or hospitals. That is why to-day only two classes of people can get good treatment, the very rich and the very poor; and between them are the so-called self-respecting working men. The working man, who, if he remains a self-respecting working man, is quite unlikely to receive adequate medical treatment. The very rich can get medical treatment, because their means enable them to have at their command all the resources that all the specialists can provide. The very poor can get good medical treatment, because it is provided for by the charitable institutions, and the problem to meet is to so organize as to work all the way through. I think that is more important than the small amount of dispensary abuse.

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Editorials

THE HOSPITAL DIETARY

How many hospital superintendents and prescribing physicians know whether the patients under their care are being fed economically and efficiently? Very few. The American hospitals in which a rational

prescription for food is given may be counted—we believe—on the fingers of one hand.

How many superintendents O.K. all requisitions for food prescribed for patients or requested for employees? And how many of these know, when they O.K. the requisition, whether the amount asked for is too little or too much; of the most economical form or not?

How many authorities in hospitals who have to do with buying and distributing the various sorts of foods know how many calories a convalescent patient at rest in bed requires; or how much a male orderly or a kitchen maid need in order to efficiently perform their duties and not lose weight? And of these calories how many hospital administrators know what proportion should be supplied by the protein food, what proportion by the fat, and what proportion by the carbohydrate?

How many physicians know approximately the amount of the various calories needed by a patient suffering from typhoid fever during its various stages?

Such questions arise in the minds of those hospital workers who are in touch with the work and writings of Rubner, Voit, Lusk, Coleman, Benedict, Lee, Chittenden, Barker—to mention only a few of the men who are working on this most important problem.

Our readers who have tender consciences regarding this matter would do well to read Lusk's little work on the Fundamental Basis of Nutrition, published by the Yale University Press, and also the

papers presented on the subject at the last meeting of the American Medical Association, some of which appeared in the Journal of the American Medical Association, Sept. 5th and Sept. 12th.

HOSPITAL VENTILATION

IN America, at the present time, no one is prepared to say that the question of the ventilation of hospitals is definitely settled. What one does learn from various sources is that artificial systems, as tried out in several of the larger hospitals—in New York, for example—have proven to be failures, have ceased being operated, natural ventilation by windows having been adopted in their places.

One of the most outspoken opponents of the artificial methods of ventilation, as seen in these New York institutions, is Prof. Gilman Thompson, who has made some interesting observations on patients in hospital with respect to the influence of the air breathed, on pulse rate, temperature, and blood pressure. What Prof. Thompson asks for for his patients is *fresh* air, something, he claims, which is not furnished after the outside atmosphere is passed through water sprays, drawn over steam coils and through long, dark and dusty ducts. Dr. Gilman's view is—we think—shared by most clinicians and hospital superintendents who have had experience with the fan system of ventilating wards.

The ventilating engineers say the fault is not theirs. If the clinicians will say what kind of air

they want to prescribe for their patients, that identical air can be supplied by mechanical means. Thus far the doctors have not specified the particular kind of air wanted, that is, the quantity, at what temperature, what degree of moisture, rate of movement, etc. The customary prescription "fresh air" is somewhat vague.

The physicians say that after outside air has passed through the ventilating mill the subtle quality of "freshness" has disappeared—to the disadvantage of the patient.

For some years now it has been proven, say the physiologists, that the lessened oxygen content of the respired air and the increased amount of carbon dioxide in it do not deleteriously affect those who live in more or less crowded rooms. The carbonic acid gas is not the inimical factor. The cause of the discomfort and malaise is rather caused by the increased bodily temperature plus the increased humidity in the air of the room, preventing, what may be termed, the respiration of the skin. It was a mistaken idea, it appears, to have held that some volatile organic poison, termed by some anthropotoxin, was expired or emitted from the human body, as indicated by more or less noxious odors and stuffiness, recognized by the olfactory nerves. Though this be true, the psychologic effect of this unpleasantness is unquestioned; and requires to be taken into account in any system of ventilation.

It is claimed, too, that the movement of the air is desirable: it lessens the balefulness of the aerial

aura which surrounds each person in a crowded room, which stagnant, warm, enveloping medium prevents evaporation from the skin and destroys the sense of *bien-être*.

But the question is not one for the physiologist alone. His studies must be supplemented by those of the clinician and his staff of house doctors and nurses, and by those of the ventilating engineer. The physiologist may study the effect of mal-ventilation on the organs and their functions in the lower animals and in man; while the clinician studies its effects on the patients in the wards. Not only must the studies be directed to the pulse, blood pressure, temperature; but also upon metabolism, *et al.*

The physiologists can do—are doing—certain experimental work, denied the physician, particularly in the study of comparative muscle fatiguability in animals subjected to life in poorly ventilated quarters as well as those living in properly ventilated cages.

It is evident that chemical investigation of the subject will play an important role in arriving at a rational decision.

At present we are seeing but through a glass darkly.

Certainly we do know that, wherever possible, we should eliminate dust and smoke from the atmosphere we breathe; that pure, fresh out-of-door air is of paramount importance in the maintenance and restoration of health; that it is a *sine qua non* in the successful treatment of pulmonary and other forms of tuberculosis; that it is equally important in the treat-

ment of lobar pneumonia; that patients suffering from anemia, primary or secondary, need it; that it is successfully prescribed in septicemia and in certain functional nervous diseases and in many mental troubles, with excellent results.

When we come to diabetes, nephritis, arteriosclerosis, certain skin affections, bronchitis and numerous other affections, air conditioning is necessary—a certain temperature, a certain humidity, and a modification and regulation of the air movement, depending upon the nature of the complaint.

Further, it is generally agreed that ward kitchens, sink rooms, linen rooms, bath rooms, toilet rooms and the like should be provided, at least, with exhaust pipes and fans, which will draw off all contaminated air. But as to general ward ventilation, we have much to learn.

A HOSPITAL WITHIN A HOSPITAL

ONE might prefix the adjective “mental” to the above title, since the unique and compelling undertaking referred to is located in the Manhattan Hospital for the Insane.

The work has only been in existence a few months, yet the results accomplished and the earnest it bears of greater things to come are an awe-compelling revelation of the possibilities in human nature.

Professor Karl Moench—a grave and lonely man, was himself, for a few months, a patient in the Insane

hospital. On recovering his normal powers, he voluntarily elected to remain in the institution and to see what he could do to help those who were about him. Professor Moench, who is a Doctor of Philosophy, has selected for his efforts inmates of the most unresponsive and hopeless class; and by his marvellous patience and enthusiasm has already succeeded in numerous instances in lighting the spark of intelligence that he believes must lurk somewhere behind the dull ferocity or fatuous grins of his pupil-patients.

Professor Moench works on the principle that in each witless subject there is some one chord of human interest to which, if sounded, he will respond, and results thus far obtained seem to justify his belief. One case of wilful dumbness was cured in an instant by the chapel organ whose tones aroused the obstinate patient to loud and continuous singing. Another—named the “Terror” because of his violence—learned the alphabet by clay modelling, and now proudly and with a mighty effort reads simple words; and with each little advance and pat of approval from his enthusiastic teacher, the patient grows more tractable.

Modelling in clay, making some bit of ornament, counting, singing, putting together simple picture puzzles—this patient, enthusiastic man tries these and a dozen other simple methods until he strikes some spark of intelligent interest in the most unresponsive and lowest mentality. He never gives up nor acknowledges defeat; and once touching the right chord

he is able to halt these minds in their downward course and slowly train them first to a measure of concentration, then to imitate, and finally to originate.

A slow, and almost hopeless task; yet it is the "almost" that grants the fraction of hope upon the strength of which the professor labors. Less than a year has this modest unheralded "treatment-class" been under way; and in that time three patients, from being apparently hopeless lunatics have been discharged as cured; others have become sufficiently controlled to be allowed out on parole; men from the most disturbed wards—men low in mentality, unkempt and violent, have begun to show signs of intelligence and have become tractable and decent.

Naturally, in so large an institution, only a few can come under the influence of this man of sacrifice. The treatment is entirely an individual one, without rule of thumb. To what degree Dr. Moench's personality—the whole spiritual and mental force of the man concentrated upon the numbed intelligence in a passion of enthusiasm, faith and patience—is responsible for awakening the answering note, is a question for psychologists. But as the investigator to whom we are indebted for a knowledge of this work says:

"If such results can be obtained by a lone and saddened man working against great odds in a wretched little building that used to be a morgue, with almost no equipment and with the expenditure of no money except the few pennies that can be squeezed from an infinitesimal salary—lower than the wage of an untutored attendant—what results might be attained

through the establishment of a well equipped building and the expenditure of a moderate amount of money."

Yet if this man's work proves anything it proves how much greater is the personal factor than the equipment. Money and building are easy to find, but where are the men of faith and patience and love to bring results?

Original Contributions

SHORT-TERM CAMPAIGNS FOR HOSPITALS

By WILBOR A. BOWEN, Mount Vernon, N.Y.

THE short-term campaign method of raising money had its origin in 1905 through Mr. C. S. Ward, Secretary of the International Committee of Young Men's Christian Associations. For nine years he has led many of these campaigns chiefly for Young Men's Christian Associations. The campaign securing the largest sum ever subscribed by this plan was led by Mr. Ward in New York City in December, 1913, for the Young Men's Christian Association and the Young Women's Christian Association, a joint campaign, securing over \$4,000,000.

Beginning in 1911 Hospitals began asking for these short-term campaigns to secure sums adequate to put up new buildings and pay off debts. However, one such campaign had before this been successfully conducted by Mr. W. T. Perkins for the Hospital at Glens Falls, N.Y., and Mr. Ward had aided several hospitals in connection with Y.M.C.A. campaigns.

About seventy-five hospital campaigns have been conducted in 1911, 1912, 1913 and 1914, and the sums subscribed have reached around \$7,000,000. From two or three leaders, the number has increased to fourteen.

The Young Men's Christian Associations have International and State organizations, which relate leaders to associations needing campaigns, but the hospitals are without such agencies. Because of this condition, hospital campaign leaders must effect their engagements direct. This works out unfortunately, as leaders are booked ahead at times for months, while again they are for weeks unemployed. Seemingly there ought to be some agency to which the hospitals generally can look which will be in touch with every leader and so secure continuous service by leaders with hospitals.

In the average city the leader and assistant should be on the ground about seven weeks, about five weeks being given to preparatory work, and the balance of the time to the campaign proper. During the preparatory period headquarters will be maintained, a clerical force employed, and frequent committee meetings held. The Directors will authorize the formation of a Campaign Executive Committee of perhaps one hundred men to have complete charge of the campaign. This committee will depend on several smaller committees to carry out all the arrangements.

During the preparatory period a Committee on Initial Subscriptions will undertake to secure several large pledges conditioned on the entire sum asked for being secured. Where some of these pledges can be secured in advance of the preparatory period it is better. Pledges are usually payable in four instalments, six months apart.

The names of people to be interviewed are placed on cards measuring three by five inches, and these are put in alphabetical order in card index boxes. These lists may include the names of ten to forty thousand people, depending on the size of the city. These cards during the campaign proper are taken by workers, and the name of the worker is recorded on a type-written list prepared in advance, next to the name of the person whose card is taken for an interview. The principal rule of the campaign is that no worker is to call and solicit a subscription except the worker has an assignment card bearing the name of the person to be interviewed.

During the preparatory period the canvassing committees are formed, the committees usually being called teams, with a captain for each team of ten. The force may consist of twenty teams of men and twenty teams of women, or there may be forty or sixty teams of men and a like number of women in the larger places. Frequently also teams are formed in neighboring communities. The teams have no work till the campaign of ten or twelve days starts. These team workers are expected during the campaign to give portions of time each day to canvassing and to attend the daily meetings.

Pastors will usually preach a sermon on the hospital topic the Sunday before the campaign opens. An opening banquet

follows a day or two later with educational and inspirational after-dinner addresses. The large initial subscriptions are then announced.

The next day the team workers meet with dinner and after full explanations divide assignment cards, and with a supply of pledge cards start out after pledges toward the fund. These dinners are held daily, without charge to the workers, and the captains when called on rise and announce the sums raised by their several teams. Additional assignment cards are taken and the workers start out again to canvass, and as the interest grows they find time for a great deal of activity daily. At these daily meetings each team has a separate table of its own. In many campaigns the teams of women have met at 1 p.m. and the men at 6.15 p.m. In some instances all the workers, men and women, have met at the same hour, 12.30 p.m.

The newspaper will report the result of this team work, and large electrically lighted clocks on public buildings will register the progress of the campaign. About twenty-five per cent. of the cost of a campaign is often devoted to publicity. A series of questions and answers should be prepared for the guidance of workers, so that only correct statements will be given out by the large force of workers, to many of whom the hospital is largely a new topic.

The objective, that is, the sum aimed for, should be somewhat conservatively determined on. The amount of the initial subscriptions will help decide this, together with the results in other places. The organization should be given a task that will win. A generous over-subscription has been frequently possible. Experience shows that with careful management the shrinkage in collections should not be over three to six per cent. of the fund.

There is a lasting permanent value gained by the short-term campaign. The community is educated, many new workers found, and hundreds of new prospective givers for yearly expenses located. Usually in places of 25,000 to 100,000 from 4,000 to 9,000 pledges are secured.

Selected Articles

THE QUEEN'S CANADIAN MILITARY HOSPITAL

BY MARY MACLEOD MOORE.

When Canadian hearts are touched by the thought of the unspeakable woe suffered by gallant little Belgium and her people it may ease them to know that, not only are Canadian provisions and Canadian money being sent from the Dominion for their relief, but Canadian doctors and Canadian nurses are actually alleviating the pain of wounded Belgians.

Within four miles of beautiful Folkestone, one of the most popular and healthy of the English South Coast resorts, and within half a mile of the great military camp at Shorncliffe, Kent, is the Queen's Canadian Military Hospital, which is being maintained by the Anglo-Canadian community for the benefit of the wounded men of His Majesty's army who need treatment and care. It is curiously appropriate that by request of the War Office the first patients in the hospital should be a number of Belgian soldiers who were badly wounded gallantly defending Antwerp against the Germans. Here, amid the most restful surroundings, tended by Canadians, lie some of our courageous allies, who are paying in blood and in anguish of mind for an honest desire to retain their country's honor and self-respect.

The Queen's Canadian Military Hospital, which is in full working order, is at Beachborough Park, the country seat of Sir Arthur Basil Markham, M.P., and Lady Markham, who very generously placed this beautiful house at the disposal of the Canadian War Contingent Association, of which the Hon. George H. Perley, M.P., Acting High Commissioner, is president. In addition, Sir Arthur Markham has presented a most up-to-date X-ray equipment to the hospital. Lady Markham, herself the daughter of a soldier, Captain A. B. Cunningham, late R.A., has taken charge of the domestic arrangements of the hospital, and is rendering invaluable services in connection

therewith. Lady Markham is also a member of the Ladies' Committee of the Canadian War Contingent Association.

The idea of establishing and maintaining in England, for the period of the war, a Canadian Military Hospital for the use of His Majesty's forces, was first suggested by the Canada Lodge of Freemasons of London. The members of the lodge took the matter in hand enthusiastically and with great energy. The idea was so warmly received by the authorities, and by Anglo-Canadians, that it was finally decided to make the hospital a gift from the Canadian War Contingent Association, as representing Anglo-Canadians, and the Canada Lodge of Freemasons, as representing the Masonic fraternity of the Dominion; with a joint committee called the hospital sub-committee.

The hospital was formally offered to the Army Council, through the Queen's Committee of the Order of St. John of Jerusalem (the senior Red Cross organization of the United Kingdom), of which H.R.H. the Duke of Connaught is Grand Prior. After its acceptance Her Majesty the Queen graciously granted special permission to use the title, "The Queen's Canadian Military Hospital." That Her Majesty's interest is very real is proved by the fact that she is desirous that the Canadian Branch of the Queen's Needlework Guild, now being organized by Miss Catherine Welland Merritt, should work for the hospital first, as well as for the soldiers in the Canadian contingents, before supplying any other needs.

The Anglo-Canadians have promised to provide and maintain fifty beds in the Q.C.M.H., with power to increase to one hundred beds. The medical and surgical arrangements are under the control of two eminent Canadians, whose names inspire confidence everywhere. They are Sir William Osler, F.R.S., F.R.C.P., Regius Professor of Medicine, Oxford, who is acting as Physician-in-Chief, and Mr. Donald Armour, F.R.C.S., who is acting as Surgeon-in-Chief.

Miss Amy McMahon, formerly of Toronto, is matron, and the entire medical and nursing staff is Canadian. Among those who offered their services were the following doctors and nurses, some of whom are now actively engaged at the hospital: Dr. Alan Currie, Halifax; Dr. Norman Wallace, Guelph, Ont.; Dr. W. A. Kennedy, Kingston, Ont.; and Dr. Harrison. Also

Miss Muriel Galt, who has now gone to the front; Miss Gertrude Squire, who attended the Duchess of Connaught; Miss L. R. Bryce, Miss Mitchell and Miss Pyke, all of Toronto; Miss Flora Wylie, Miss G. L. Baynes, both of Montreal, and Miss G. M. J. Wake, and Miss Beatrice Hassell, of Victoria, B.C.

Needless to say, it costs a great deal, both in money and in supplies of all kinds to maintain the hospital. The Ladies' Committee, of which Mrs. George H. Perley is president, and Mrs. George McLaren Brown hon. secretary, meets regularly to arrange for the clothing, etc., needed for patients in the hospital. Besides the more obvious requirements, crutches, bed-rests and special garments are needed, and from time to time the committee makes its special wants known. Money is obviously necessary to carry on this splendid work in England, and subscriptions are asked for, to be sent to the Hon. Treasurer, Mr. G. C. Cassels, Bank of Montreal, 47 Threadneedle Street, London, E.C.

In addition to the hospital there will be convalescent homes for the officers and men who are sufficiently recovered to be moved in order to make room for the wounded constantly coming to England. Several generous offers have been made of accommodation, and whole houses are lent for the purpose. Mr. and Mrs. Moat, of Johnson Hall, near Eccleshall, Sheffield, have lent their house to the Canadian War Contingent Association, for eight patients, and Mrs. Arnoldi lends her house in Kensington as a hospital for officers.

The generosity and eagerness of the Canadians, whether in the Dominion or in England, have won the undying appreciation of the people of the Motherland. Men, money, supplies and whole-hearted loyal support have been poured out ungrudgingly in the service of the Mother of Nations. And to many a poor wounded man, shattered not only by German shells, but by the memory of horrors unspeakable, the kindness of Canadian doctors and nurses in the hospital which bears testimony to Canadian sympathy seems a glimpse of heaven upon a much-tortured, sorrowing earth.—*Saturday Night, Nov. 14th, 1914.*

FLOORS *

EVERYONE knows the experience of Laveran. Laveran analyzed the air of a room of Val-de-Grace, and found 16,200 germs per cubic metre. Shortly afterward the floor was washed; a new analysis gave 37,200 germs.

Is it necessary to say more to prove that the floors of a hospital ought to be non-absorbent, continuous, and without cracks and interstices? Because, if amongst the germs found by Laveran there was a great majority of inoffensive microbes, it is certain that the dust of the rooms of the hospital contained also pathogenic organisms: the bacillus of Koch, of Loeffler, staphylococci, streptococci and pneumococci.

There is no doubt that the diseases so frequent not long ago—erysipelas, gangrene, septicemia, tetanus—perpetuated themselves by the favor of the porosities and cracks in the floors, where spores and microbes found a sure refuge.

Thus it is with reason that builders of hospitals attach extreme importance to the providing of rooms with floors, solid, impermeable, without cracks and crevices, as we have already said above.

In the old hospitals, the floor-fill of wards was re-covered by squares of baked earth, porous, or by a wooden floor of more or less mediocre quality.

At the hospital of St. John, Brussels, there are such wooden floors. It was noted one day that a general lavage of the floor was followed by an outbreak of erysipelas. It was then decided to wax the floors. The results obtained, however, were scarcely satisfactory.

One fact is certain: it is that all floors of wood, whether painted or waxed, finally become impregnated with impurities, and contract under the influence of repeated washings. Floors made of the driest wood, constructed by workmen the most efficient, after a certain time crack more or less deeply. Debris of all sorts penetrates into these crevices.

*Translated from Depage, Vandervelde and Cheval's recent book, "La Construction des Hospitaux," by Dr. John N. E. Brown, Supt. Detroit General Hospital.

One conclusion imposes itself then: reject definitely the old-fashioned floors.

It has been recommended to cram, with an impermeable and elastic mastic, the cracks in the wooden floors, then to impregnate the wood with linseed oil. After drying, the floors are submitted to a coating of wax.

This process has been employed in the old laboratory of anatomy and pathology in the University of Brussels. The coating lasted several weeks—not longer.

In considering floors of wood, one comes naturally to parquetry.

In England, they use parquetry of oak, teak or maple, fixed by clasps of iron. The parquetry is oiled, then dried, waxed, and finally polished. This gives a layer absolutely refractory to humidity.

The English generally prefer teak to oak, because the former offers a fibre more compact and more resistant. They strongly unite the pieces with the iron clasps, and, if in spite of these precautions they see the least fissure, they pack it hermetically with wax or with paraffine.

In England they construct the parquetry of wood soaked in oil, and afterward they submit it to an application of wax or of varnish. Every morning the floor is brushed over with a moist cloth, then with a dry rag. This sort of parquetry is without doubt costly. It has the drawback of not being very durable.

In France and in Belgium, they use divers sorts of parquetry:

1. The parquetry is glued upon the foundation. This is costly. They use it in houses. It is not suitable for hospitals, because it will not stand the free application of water.

2. Parquetry upon bitumen. This parquetry can only be laid upon a resisting base. This will stand washing and costs less than the preceding type.

3. Parquetry nailed upon the base. This is an economical form. Unfortunately the rejoining is very difficult.

4. Laying the parquetry in lithoxyle, which is not recommended.

To sum up: a parquetry constructed with first-class wood, by a capable workman, can be made to suit floors of rooms for the sick. It has, however, three objections:

1. It is too dear.
2. It presents, nearly always, crevices, especially if it is not of the best quality.
3. It tolerates badly daily washings with much water.
4. The junction with the wall makes a right angle. One can correct this by placing down a plinth. But the plinth, itself, is a source of cracks and fissures.

At the Johns Hopkins Hospital, Baltimore, they use in the angle a piece of rounded wood, thus doing away with the square corner.

A floor of cement is used at the Moabit Hospital. They are not very well satisfied with it, and purpose replacing it with mosaic.

The granite terrazzo has been used in certain German hospitals. This material answers better for the terraces than for the sick rooms. It stains with grease and gives a disagreeable sensation of cold to the touch. It will crack at the end of a certain time.

Mosaic offers two distinct varieties: placed in regular order and sprinkled irregularly. The former is relatively expensive. It is favored in operation rooms, vestibules, occasionally in wards.

As to the second, it offers many advantages, provided that it is prepared with a cement of a good quality (Portland cement); placed with live chalk, it loses its qualities, because the chalk disintegrates and pulverizes too rapidly. The sown mosaic constitutes a veritable impregnable surface; one can give it the form that one desires, rounding the angles and corners. The appearance of this mosaic, which one can see at Dr. Depage's Institute, appears satisfactory: sometimes it is criticized because it glistens after washing. At Eppendorf, Urban, Moabit, it has become cracked.

To avoid the cracks one prepares at the shop large plaques of mosaic, one and a half metres square; these squares are surrounded by metallic bands, which are flayed ulteriorly. The joints are packed with a mortar of mosaic.

They have adopted the plaques of mosaic, as described above, for the operation rooms at the Eppendorf, where they give complete satisfaction.

The use of tile gives cause for the same consideration as the use of mosaic. It offers the advantages of being more resistant, and not so splintering, but it is colder than mosaic; its surface is less united and presents interstices between the squares.

In Germany they make the pavements of tile of a very good quality (Mettlas, Merzig). One can fill the interstices with cement, with "Parcelankitt." There exist some pavements of this sort at the clinics of Halle and of Nuremburg.

One finds in Belgium a number of fabricated tiles. We do not know if the quality of their products is equal to that of Germany.

The junction of the tile floor with the walls should be made by means of curved or rounded pieces.

Metallic floors have not been found to be satisfactory for hospitals.

In many hospitals, notably at Urban, they have covered the mosaic with linoleum, with the object of deadening the noises. In other places they placed linoleum over wood.

Linoleum often becomes unglued; it wears quickly, and soon takes on a poor appearance. Everywhere it has been used they have been obliged to renew it after a little time. Its use does not offer any serious advantage.

Torgament is a composition flooring, formed of a mixture of one of salts of magnesium, of saw-dust, of resin and of cement, in given proportions. They manufacture Torgament at Leipzig. It is already used in several places in Germany and Belgium.

At Brussels, the floor of Dr. Rouffart's operation room is made of Torgament. It is also used at the popular sanitarium of La Hulpe. Dr. Derscheidt declares that he is satisfied with it, but states that it is slippery.

At the new hospital of Charleroi (1910), after several weeks of use, the Torgament was completely streaked and splintered. It presents, besides, an unpleasant appearance, which makes us definitely reject it.

Prismalith and porphyrolithe are open to the same objections; they are not materials to be recommended.

To sum up: the choice ought to be limited, according to us, to parquetry, mosaic and tile. These three kinds of materials, if they are well put down, can give a surface continuous and satisfactorily joined to the walls.

If one decides to heat the floor, one will give the preference to mosaic or to the tile.

In the contrary case, one will choose parquetry, and will not hesitate at the price of it.

SOME SUBJECT HEADINGS AND SUB-DIVISIONS THEREOF UNDER WHICH HOSPITAL COR- RESPONDENCE MAY BE FILED

MAIN HEADINGS.

MAINTENANCE	STATISTICAL.
CAPITAL	ACCOUNTABLE WARRANT
REVENUE	ACCOUNT AND PAYMENT
RETURNS	REMOVAL OF LUNATICS
CRIMINAL JUSTICE.	

The two main headings, "Maintenance" and "Capital," require a greater number of sub-divisions than the other main headings.

"MAINTENANCE."

SUB-HEADS.

Medicines	Repairs and Replacements
Provisions	Office Expenses
Heat and Light	Farm Expenses
Clothing and Dry Goods	Miscellaneous
Laundry and Cleaning	Employees and Salaries.

SUB-DIVISIONS OF SUB-HEADS.

Medicines—

Medicines and Medical Appliances.

Provisions—

Butter

Coffee.

Tea.

- Other beverages.
- Eggs.
- Flour.
- Milk and Cream.
- Bread Ingredients, except Flour.
- Biscuits, Buns, Cakes, etc.
- Potatoes.
- Sugar and Syrup.
- Fresh Fruit and Vegetables, except Potatoes.
- Fish and Fowl.
- Canned and Dried Fruit and Vegetables, Preserves.
- Other unenumerated provisions.

Heat and Light—

- Coal.
- Wood.
- Electricity.
- Gas.
- Oil, Candles, Matches, etc.

Clothing and Dry Goods—

- Clothing.
- Boots and Shoes.
- Dry Goods.

Laundry and Cleaning—

- Brushes, Brooms, Mops, etc.
- Soap.
- Miscellaneous Supplies.
- Small Repairs, Alterations, etc.

Repairs and Replacements—

- Furniture.
- Furnishings.
- Buildings.
- Heating and Lighting Apparatus.
- Vehicles.
- Tools and Implements (not included under sub-heading "Farm.")

Office Expenses—

- Telephone and Telegraph.
- Stationery.

Postage.

Miscellaneous Items.

Farm—

Feed and Fodder.

Seeds, etc.

Farm Product.

Farm Tools and Implements (not included in sub-head
"Repairs and Replacements.")

Live Stock.

Miscellaneous.

Miscellaneous—

Ice.

Power.

Water.

Freight, Cartage, Duties, etc.

Elopements.

Sundry Miscellaneous Items.

Employees and Salaries—

Applications.

Dismissals.

Suspensions.

Perquisites.

Physicians.

Bursar's Assistant.

Matron's Assistants.

Engineer's Assistants

Male Attendants.

Female Attendants.

Teachers.

Appointments.

Resignations.

Salaries.

Superintendents.

Bursar.

Matron.

Engineer

Artisans (not domestics.)

Capital—Sub-Heads.

No definite sub-division can be made for this main heading. Each of the estimate headings for the current year will make sub-heads.

Revenue—Sub-heads.

Paying patients.

Farm.

Miscellaneous.

Returns—Sub-Heads.

Daily Requisitions.

Special Requisitions—Patients.

Special Requisitions—Superintendent.

Special Requisitions—Bursar.

Made-up Goods—This may be further sub-divided as follows:—

Sewing Room.

Tailor Shop.

Preserves, Pickles, etc.

Carpenter, Tinsmith, Shoemaker, etc.

Coal consumed.

*Statistical—**Accountable Warrant—**Account and Payment—**Removal of Lunatics—**Criminal Justice—*

APPLICATION FOR ADMISSION.

Upon inquiry being made for the admission of a patient, the Medical Superintendent will send Statement (Form No. 120), accompanied by Inventory and Valuation (Form No. 140).

The correspondence relating to such application will be filed in a "Miscellaneous" fyle, and a white card will be made out with the name of the patient and number of folder in which letter has been placed. Should the patient's name not be given, the white card may be made out under the name of the physician or other person enquiring, and upon the admission of patient, or upon receiving patient's name at the later date, a new card may be made out, on which will be written the patient's name and folder number. The first card will serve for cross reference as the fyle number on both cards will be the same. When the correspondence relating to a patient exceeds say, ten sheets, and the correspondence is likely to be extensive, all papers should be transferred from the "Miscellaneous" folder to an individual folder having a new number, and on the white card should be placed this new number and opposite the same the words "Transferred to."

All fying must be numerical, commencing from the figure "1," and from thence upward, except in the case of "Miscel-

laneous," when for the purpose of identification, a cipher should be prefixed, i.e., "01," as described above under heading "**Miscellaneous.**"

The Statement and Inventory having been returned, the latter is transferred to the Bursar, so as to enable the Medical Superintendent to confer with that officer as to the rate to be charged, bond to be given to secure maintenance, etc., etc., etc. The Medical Certificates are then sent forward together with such information and instructions as the Medical Superintendent deems necessary.

The Statement and Inventory are fyled with the correspondence pending admission of patient.

The white card is to be used only as an index to correspondence and is to be kept in separate tray or drawer and fyled alphabetically.

ADMISSION OF PATIENT.

Upon the actual admission of the patient, a buff card (No. 132), is made out as far as possible, and from that time becomes the basis of all indexing, and of all records bearing upon the patient. On this card must be given as far as possible the information as indicated on the card and *particularly* registered number, correspondence fyle number, as mentioned above, and the number of fyle (case book), in which the clinical records are to be kept. This card should be made in triplicate, one for general office reference, one for the Assistant Superintendent's office as the key to the clinical record fyle, and one for the Medical Superintendent's office. These cards are all to be filed alphabetically in trays or drawers to be supplied for the purpose.

Propensity Card (Card No. 136), is made out upon the admission of patient to any particular ward, remains fyled in a card tray so long as patient is retained in that ward, and follows the patient on transfer to any other ward. Upon discharge or death of patient, this card is returned to the office and fyled alphabetically with such cards previously used. The information as indicated on card must be filled in from time to time so that upon being returned to office, the card would indicate movements of patient, the date of same, etc. This card takes the place of the propensity sheet at present in use in the institutions.

CASE BOOK FOLDER.

A folder (Case Book) having been assigned to patient and numbered (the number next to last folder), is fyled in a vertical fyle (to be used exclusively for clinical records) and between numerical guides numbered from 1 up. In this folder will be fyled statement (the same having been removed from the correspondence fyle), the medical certificates and the records hereinafter more particularly referred to.

ADMISSION NOTICE.

Upon admission of a patient, admission notice should be made in triplicate, two copies to be sent forthwith to inspector, containing full particulars of patient as indicated on form, and a third copy fyled with any correspondence received relating to patient.

INVENTORY AND VALUATION.

A duplicate of the inventory and valuation must also be sent to the inspector as soon as possible.

CLINICAL RECORDS.

Specimen sheets of clinical records which have been approved of by the department, are attached hereto, together with regulations respecting the use of same, such regulations having been approved of by the Honorable the Provincial Secretary. Specimen cards are also attached.

(1) *Form No. 121.*—This blank becomes the basis of the actual records of the patient, and the use of this form is apparent, as are all subsequent forms noted.

(2) *Form No. 123. Ward Admission Record.*—This record is to be filled out in detail after thorough examination of patient. On the reverse side of the blank is a list of clothing received with patient on admission. This clothing is sent to the Matron or other officer in charge of same and checked up according to list, and the list is returned to the ward, whence, after proper checking, is sent to the office and becomes the second sheet in record of the patient. This form must be signed as indicated.

(3) *Form No. 122. Statistical Record.*—This sheet is next in order of use: includes same statistical data, and a more extended observation of patient than has heretofore been possible,

and will be required to be entered up from time to time as the exigencies of the case require.

(4) *Form No. 125. Clinical Chart.**—This accompanies patient during his detention in any ward, and is for the record of medical data.

(5) *Ward Notes.*—To be used at such times as the discretion of the physician or the needs of the patient indicate.

(6) *Form No. 128. Sleep and Weight Chart.*—To be used in determining procedure for any special treatment of patient, and to record his condition from time to time.

(7) *Form No. 129. Laboratory.*—To be used at such time as the physician may dictate.

(8) *Form No. 130. Blood Examination.*—To be used at such time as the physician may dictate.

(9) *Form No. 126. Treatment Sheet.*—This sheet accompanies patient to ward and indicates treatment prescribed. When this sheet is filled up it is to be returned to the office for filing in folder.

(10) *Form No. 127. Clinical Record.**—This form is to be made out by the physician, and will contain extended history of patient. On this sheet will be placed such information respecting the previous history of patient, physician examination, mental status and such history relating to parents and ancestors as will be of service for future reference. Notes will be made on this sheet from time to time of the progress of the case as required by "The Regulations respecting the use of Clinical Records." The history should be made out with the fullest possible detail.

(11) *Form No. 124. Conference Sheet.*—Records, minutes of conference and diagnosis and prognosis of case. It should state names of physicians in attendance and date of conference. Conference of Medical Superintendent and medical staff should be held three times a week, if possible.

WARRANT CASES.

The above regulations should be made to conform as nearly as possible in cases where patients are admitted by warrants.

TRANSFER OF RECORDS, ETC.

On death or discharge of patient the folders containing the correspondence and clinical records should be transferred from

vertical fyles to transfer boxes and the transfer noted on the cards. Card No. 132 may on death or discharge of patient be removed from the "Current" card tray and placed in a dead and discharged" card tray.

PROPENSITY CARD FYLE.

Card No. 136 (Propensity Card) when in use in ward is fyled in a black cardboard box with alphabetical guides. These boxes have a capacity for 200 cards. The number of the ward should be plainly marked on the box. This box is left with the attendant or supervisor—whichever may be in charge of the ward.

GENERAL INSTRUCTIONS.

Folders for either correspondence or clinical records must not be fyled by registered number but in proper numerical sequence, commencing at the number "1," and from thence upward. Card No. 132 affords ready reference, and is the key to all matters pertaining to patient. The purpose for which this card is designed requires that the same should be filled out as fully as the information available will permit.

Forms and cards should be typewritten so as to preserve uniformity, neatness and quick reference.

The system of fyling outlined above anticipates the use of the same fyle by both Medical Superintendent and Bursar. By this system the duplication of fyles is avoided, economy of space and facility of reference secured.

All fyles should be in charge of the stenographer.

If necessary, Card No. 132 may also be made out for the use of the Bursar, and in such case it will be fyled by him alphabetically in a card tray used for that purpose.

In order to maintain a uniform fyling system in the hospitals for the insane in the Province, the above regulations must be carried out as indicated. All papers and sheets must be opened out and fyled on edge. If paper to be fyled is longer than the folder, then fold paper in half. To preserve neatness in fyle this should be observed. Letters unopened should not be put in folder in that condition, but should first be opened, and if envelope requires to be preserved, this should be cut at ends, opened out and gummed to the letter.

All guides, cards, folders, forms and supplies used in connection with the above filing system may be obtained upon requisition being made for the same to the department.

Parliament Buildings,
Toronto, Ontario.

Society Proceedings

The next meeting of the American Hospital Association will be held at San Francisco June 22nd, 23rd, 24th and 25th, 1915.

Doubtless this will be the greatest hospital convention ever convened.

Trustees should arrange to have a representative at this meeting. By all means see that your superintendent attends. It will pay your institution to provide for his expenses.

The Association has for its object the promotion of economy and efficiency in hospital management. Thousands of dollars of public money are being saved each year because of suggestion for improvement and economy learned at these meetings. Has your superintendent ever had the privilege of listening to the ablest hospital administrators discuss questions which are of vital interest to small as well as large institutions. In fact, the majority of the discussions at these meetings refer to small hospital problems.

The Transactions of the St. Paul convention are just about completed. This report contains about 500 pages of matter pertaining to institutions for the cure of the sick. In fact, every phase of hospital work is discussed. No institution official can afford to be without a copy of this report.

If you are not already a member send your application to the secretary to-day. Membership in the Association entitles you to a copy of its proceedings.

The following extracts from the constitution and by-laws indicate who are eligible to membership:

"Active members shall be those who at the time of their election are trustees or executive heads of hospitals."

"Associate members shall be those who are executive officers of hospitals next in authority below the superintendent, contributors to or officers or members of any association, the object of which is the foundation of hospitals or the promotion of the interest of organized medical charities, hospital physicians, surgeons, pathologists and superintendents of nurses."

"All applications shall be in writing and shall be endorsed by one or more members."

"The annual dues of active members shall be \$5.00; the dues of associate members shall be \$2.00." (Kindly send amount of dues with application.)

The initiation fee is \$5.00. This amount covers the first year's dues.

Now is the time to join the Association. Do not delay. As soon as you read this notice send your application at once and receive a report of the St. Paul convention.

Grading of Nurses, Hospital Architecture, Cost Accounting, Hospital Housekeeping and Hospital Morbidity Statistics are among the number of important subjects contained in this report.

Do not forget that the next meeting is at San Francisco. Special rates will obtain on all railroads. This will give an opportunity for every hospital superintendent to attend this important convention.

The American Medical Association meets at the same time.

The Great Panama Pacific Exposition will be in full swing at this time.

It is hoped that everyone eligible to membership in the Association will forward an application to Dr. H. A. Boyce, secretary, Kingston, Can., at once. Come along, fellow workers, let us build up our hospitals and at the same time boost the greatest hospital organization in the world.

Book Reviews

Materia Medica for Nurses. By A. S. BLUMGARTEN, M.D.
Published by The Macmillan Company, New York.

This text-book for nurses is more comprehensive than any other book of the same kind which we have seen. It is clear, practical, and well arranged, and will fill a more important place in the nurse's library than a text-book on *materia medica* usually does. For example, directions are given for preparing solutions, for recording symptoms, and making applications ordered for medicinal purposes. A good deal of attention is paid to physiology, and the reason is given for many procedures mentioned, thus rendering the work more interesting and more easily remembered. A chapter is given on serums and vaccines, and there is a good index. It will thus be seen that the book is complete and satisfactory.

A Medical Dictionary for Nurses. By AMY ELIZABETH POPE, graduate of School of Nursing of the Presbyterian Hospital, New York; special diploma in Education from Teachers' College, Columbia University, N.Y.; formerly Instructor in School of Nursing, Presbyterian Hospital; Instructor in School of Nursing, St. Luke's Hospital, San Francisco, Cal. G. P. Putnam's Sons, New York and London. The Knickerbocker Press.

As indicated by the preface the purpose of this book is to provide a medical dictionary containing a detailed definition of words and terms of special importance to nurses.

A useful handbook for nurses, showing by its definitions a careful study of all subjects relative to nurses' work. The words and terms are defined in a simple and lucid manner, with no redundancy, but sufficient words to make meaning clear. As all the newer books on bacteriology, chemistry, physics, physiology and medicine have been consulted in its compilation, one is assured of getting the last word on the subject.

In addition to definitions of medical words and terms there is a list of frequently used prefixes and suffixes which will facilitate the meanings of any words omitted on account of their similarity to those included.

A long list of common food products with average composition and caloric value is given which will be found useful as reference.

Chemistry for Nurses. By REUBEN OTTENBERG, A.M., M.D.,
Lecturer to Nurses' Training School, Mt. Sinai Hospital,
New York City.

This is a small, concise, plainly worded, practical volume, which may be used as a reference by any nurse who has performed the routine experiments of first-year chemistry. It is not considered advisable to hand such a primer to a nurse and to tell her to go perform these tests herself, since she must have a certain supervision in handling dangerous substances, e.g., sulphuric and nitric acid.

The nurses are addressed here in language which is not too high-flown or technical for them to grasp.

Some of the chapters could be with interest elaborated, and some of the lists filled out further to meet the latest demands in nursing, for example, Barium is known to the nurse in her preparation of a patient for X-ray pictures.

It is very satisfactory to see physicians, with their fuller knowledge, and their point of view about the nurses' needs, take up literary work on their behalf and write so that they may understand, as Dr. Ottenburg has done.

The nurse's work is largely manual, and she who observes and has plenty of common horse sense can eclipse the near-sighted student nurse book-worm.

But give the sensible practical pupil the reason why she does certain things, and gets certain chemical results, and we have then an ideal combination. This is what Dr. Ottenburg does. He combines the data of chemistry as simple every-day facts by which all of us are maybe unconsciously affected.

Dorland's American Pocket Medical Dictionary. Edited by H. Newman Dorland, M.D., Editor *American Illustrated Medical Dictionary*. Eighth edition, revised and enlarged. 32mo. of 677 pages. Philadelphia and London: W. B. Saunders Company, 1913. Flexible leather, gold edges. \$1.00 net; thumb index, \$1.25 net. The J. F. Hartz Co., Toronto.

The eighth edition of this familiar little book defines several hundred more words than the previous one. The capacity of ordinary pockets has been outgrown, but the book will have a place in the hand-bag of physician and nurse. In the preface the author remarks upon the amount of new matter added, made necessary by the large number of new terms which have appeared in surgery, pathology, clinical medicine, laboratory methods, chemistry, serology, dentistry, veterinary medicine and nursing. The book needs no recommendation.

Diet in Health and Disease. By JULIUS FRIEDENWALD, M.D., Professor of Gastro-Enterology in the College of Physicians and Surgeons, Baltimore, and JOHN RUTHERFORD, M.D., Professor of Diseases of Children in the College of Physicians and Surgeons, Baltimore. Fourth edition, thoroughly revised and enlarged. Octavo of 857 pages. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$4.00; half morocco, \$5.50 net.

Those observant physicians who have been following the trend of modern treatment will have noticed that of late much emphasis is being placed on a scientific diet. This has resulted from the work which has been done in metabolism. The time is at hand when it is more important to prescribe a proper diet in the proper way than to prescribe drugs properly. Drugs are more and more playing a subsidiary role to other prescriptions—such as hydrotherapy, light-therapy, and careful alimentation. The authors of *Diet in Health and Disease* have kept this point in mind in the new edition. The chapter on infant feed-

ing has been thoroughly revised in accordance with the modern trend of thought on this subject. The authors have well said that the practitioner wants to know how much food to give and what kind, and he wants to be told how to be able to prescribe a diet as simply as he would a drug. They have aimed to try to tell the doctor how to feed his patient. Following the discussion of the chemistry and physiology of digestion, a classification of foods is given, and a dissertation on beverages and stimulants. A practical chapter is devoted to special methods of feeding. The special milk and other cures are described. The Army and Navy rations are given, as well as the dietary of various hospitals and public institutions. Some good recipes and rapid reference diet lists follow, with a short bibliography on food and diet.

Anatomy and Physiology for Nurses. By LEROY LEWIS, M.D., formerly Surgeon to and Lecturer on Anatomy and Physiology for Nurses at the Lewis Hospital, Bay City, Michigan. Third edition. Revised thoroughly. 12mo. of 326 pages, with 161 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$1.75 net. W. B. Saunders Company, Philadelphia and London. The J. F. Hartz Co., Toronto.

Dr. LeRoy Lewis has succeeded in giving us a work on anatomy and physiology entirely suited to the needs of a nurse. The hospital library usually contains reference books affording opportunity for broader study of the subjects, but the essentials are here well arranged for class work.

Chemistry and Toxicology for Nurses. By PHILIP ASHER, Ph.G., M.D., Dean and Professor of Chemistry at the New Orleans College of Pharmacy. 12mo. of 190 pages. W. B. Saunders Company, 1914. Philadelphia and London. Cloth, \$1.25 net.

This text-book, in neat cover, with good paper, and plain type, forms a handy reference book for a busy nurse. Since

most of these pupils in the training-schools never studied chemistry, or so little and so long ago that they have forgotten it, this work proves a valuable aid in dietetics, materia medica, physiology, hygiene and pathology. It helps towards intelligent comprehension of the physician's aims and wishes, putting the nurse's work on a much higher plane. It harmonizes the scattered facts and observations collected by nurses in kitchen, ward and operating-room. The most recent discoveries in drugs are discussed, and not the least valuable part of the book is the handling of poisonous symptoms and antidotes. Technically, the work is accurate and concise.

Dietetics for Nurses. By JULIUS FRIEDENWALD, M.D., and JOHN RUHRAH, M.D. Third edition. Published by W. B. Saunders Company, Philadelphia. Price, \$1.50 net.

Living as we do in an age when much thought is given to building up the body, and repairing waste by food taken, this book cannot fail to be of the utmost value to nurses in their daily work both in and out of the hospital. The various classes of foods and their part in nutrition are considered; the chapter on the feeding of infants and children is particularly valuable to mothers and those having the welfare of the child at heart; other chapters are devoted to diet in the various diseases where feeding is a primary factor; and, with the addition of various formulae and recipes of very practical value, the book will be found an "ever present help in time of trouble."

The Hospital World

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No. 3

Editorials

MOTOR AMBULANCES

In Army Medical Corps' work the field ambulance is the strong connecting link between the dressing station in the rear of the firing line and the clearing hospital, which latter is usually stationed close to a

railway, and which in its turn forwards the wounded as rapidly as possible by railway train to those base hospitals nearest the fighting district. From this point they are again further distributed if the condition of the patients justifies the move. At the beginning of the war the field ambulances consisted largely of horse vehicles. These speedily proving insufficient, lorries, busses and other unsuitable means of transport, with the result of great congestion of wounded behind the firing line added difficulty for the field medical unit, whose duty it is to closely follow the advancing troops.

The distance between the firing line and the nearest clearing hospital being usually a matter of miles—five, ten or even more—and this distance constantly varying, it is easy to see that slow-moving horse vehicles could not collect patients and provide transport for the wounded with nearly sufficient speed or comfort. This explains the demand for motor ambulances,—more, and still more of them.

The first British fighting forces left for the front with no motor ambulances, since the War Office had none to send. When the need became evident, private benevolence rose to the occasion with loans of motor cars and gifts of specially constructed ambulances; and upon these for a few weeks much of the transport depended. The War Office rectified its error as soon as possible, and at the present moment both it and volunteers are supplying the need.

By these easy swift moving ambulances it is possible, not only to prevent congestion of the wounded

at any point, but also to transport them with comfort and speed, thus providing the early medical treatment that spells recovery to so large a number.

A motor ambulance is one of the most valuable gifts in the list of patriotic benevolences. Next to it perhaps, at this moment, are gifts of anesthetics and every form of surgical supplies.

GRADUATE MEDICAL WORK

SINCE the war began no medical courses have been given in Vienna, and none will be given until the war is over. This is also true of Paris and those other European cities noted as centres where graduate medical instruction has reached its highest development. This condition of affairs accentuates the already serious problem of efficient medical education on this side of the ocean. It is obvious that physicians cannot go abroad, or going, cannot obtain the specialized instruction they desire. There could, therefore, be no more opportune time for considering how best graduate medical instruction may be provided at home.

An address given by Dr. H. J. Arnold on this subject, in November last, before the Harvard Medical Society of New York, is, under present conditions, most timely. Dr. Arnold treats the subject from the point of view of the medical school. He discusses the standardization necessary for such graduate schools, the admission requirements and the granting of diplomas.

It is generally conceded that such schools should be controlled by the universities, since proprietary institutions, in this as in the undergraduate work, are liable to commercialism. It is also very evident that such schools should exist only in centres where general and special hospitals make a large variety of clinical material available. To the undergraduate, all clinical material is educative; but the graduate, with experience in practise, and with limited time at his command, looks for a range of clinical material which only large populations afford. He usually wants to specialize. Experience has taught him what he does not know, and he seeks the graduate course with a very exact knowledge of what he wants to know. Only extensive hospital facilities will enable him to secure this.

The plan of granting graduate diplomas to such graduates as have taken a continuous course of fixed length—longer or shorter—followed by examination, as discussed by Dr. Arnold, is commendable in connection with those medical men who are able to enter for such prescribed periods of study. To quote the writer:

“For the benefit of the public any earnest reputable practitioner who is licensed by the proper authorities should be able to find somewhere an opportunity to improve his medical knowledge.”

But the men who can pause in their practice to give four, six, or eight months to graduate study are very few compared with those who must work on with only a few occasional weeks of absence from their

field of labor. The fixed-period graduate school of medicine is a professional luxury—a most commendable one it is true, but still a luxury for the few. Harvard and other universities who have organized and are working out in this direction are doing splendid work. But the university which will find a way to give advanced clinics to the practitioner who has only days or weeks to spare, yet who is athirst for a special knowledge that will enable him to carry back to his practice the solution of special medical problems, has solved the largest factor in the problem of graduate education.

A well rounded scheme for graduate medical work should include both the opportunity for physicians to take extended study in special fields of work, and also the opportunity to review, brush up, and keep in touch for the work's sake, and without regard to diplomas. Because it is a public service such graduate instruction should be undertaken by the university, working through the co-operation of its medical faculty and the hospital.

INOCULATION FOR ENTERIC FEVER

At the present moment of writing—early February—there seems to be unanimity of opinion among British medical men that that army bugbear, typhoid, has thus far been kept splendidly in check in the British war ranks.

It is known that there has been more or less typhoid among both the German and Belgian sol-

diers. It is reported as a fact by a medical army officer at the front that the retreating Germans have in several instances left moribund typhoid patients behind them in barns and similar places to be found by the incoming allies, and incidentally to constitute an endemic menace to the advancing troops.

It appears, however, that thus far the British troops have been remarkably free from the disease, only a few scattered cases being reported. Every effort is being put forth by our experts for the continuance of this happy condition. In how far this is due to preventive inoculation many medical men are not prepared to say, preferring to reserve their opinion until the war is over. But as eminent an authority as Sir Frederick Treves has no hesitation in pronouncing upon the matter. The results of inoculation, he asserts, have been "positively astounding." He says that since the war began there have been only 212 cases, of which 173 were among persons who had not been inoculated. There have been only 22 deaths, and none of those who died had been inoculated. Not a single death from typhoid fever has occurred among those inoculated up to the time of writing.

Whether Sir Frederick is justified in drawing so optimistic a conclusion or not, it appears by these figures that he has strong grounds for so doing.

THE GAGE INSTITUTE

THE handsome new building at the corner of College and Ross Streets, just completed at a cost of \$100,000 and donated by Mr. W. J. Gage, was formally opened by Lieutenant-Governor Hendrie on February tenth. It was presented to the Board of the National Sanatorium Association to be their Head Office. Mr. W. J. Gage has, for over half a lifetime, given of his time untold hours and of his money a small fortune to further the prevention of tuberculosis by the prompt treatment of incipient cases. In the large Assembly Hall a representative audience filled every seat and corner and overflowed on the platform where the donor, in a few well chosen words, presented the building to the Board.

The Lieutenant-Governor declared "The Gage Institute" open and complimented the giver and Toronto upon the wonderful work done, on the completion of this new building, to further its interests.

Mayor Church expressed the warm sympathy and co-operation of the city in the war against tuberculosis.

Premier Hearst gave his endorsation of the good work that had been done already, in his own delightful way, showing a deep personal interest and brightest hope for the future.

Dr. N. A. Powell was so full of the subject, to which for over twenty years he had given ungrudgingly of his thought, time and skill, that he even excelled his usual happy interesting way in the art of

speech making. Dr. Hastings, the M. H. O., at the eleventh hour, hurried in and his words made all present take on a new courage. Tersely and emphatically he endorsed the work, and said already Toronto's death rate from tuberculosis was less than that in any other city of its size in America. He gave his audience their choice of Panama or Palm Beach for a winter outing, showing the wonderful strides that have been accomplished by efficient work in stamping out malaria. In like manner, expressing the hope that if herculean efforts were continuously put forth, the white plague ere very many years would disappear.

Dr. James L. Hughes, Secretary of the Association read a letter from Mr. and Mrs. (Gage) Love, asking the Board to accept a portrait of the Founder, to remain in the Institute. Mr. A. E. Ames, on behalf of the Board, accepted the portrait, the work of Mr. J. W. L. Forster, and now, upon all who enter, the face of the man who has built this "House by the side of the Road" smiles down a benediction of kindness and a bright look of hopefulness.

A FORM OF HOSPITAL ECONOMY

AN official letter from the Secretary of the American Hospital Association sounds the first call of the year regarding the next conference of the Association, which is to be held in San Francisco during the 4th week of June. Details concerning arrangements for

the trip, together with the prospective programme, will be sent out later by the Secretary, Dr. Boyce; and all information will be available at an early date. Because of the special attraction the Exposition will afford, and inducements offered in travelling rates, it is believed that a large number of Eastern hospital workers will endeavor to attend this year's meeting.

It is evident, however, that very many must forego that pleasure and profit so long as attendance at the Association meetings is looked upon as a matter of individual moment, rather than one of essential hospital value. The distance, the cost, and the time involved are almost insuperable obstacles to a large proportion of hospital workers, except indeed the very few fortunates who possess leisure in matter of service, and independence of means.

We have pointed out repeatedly the absolute monetary value of these meetings to the heads of hospitals—trustees and staff; and through them to the institution with which each is associated. By one labor saving device discovered, one hint in equipment purchased, one tested method of saving made known in these annual discussions, the attending hospital worker is enabled to carry back to his or her institution knowledge that means a natural saving of money from ten to a thousand times the cost of the trip. This is an absolute and well attested fact.

Without taking into consideration the individual stimulus and the greater working efficiency that is the natural outcome of such a conference, but reckoning on a money basis only, it pays every hospital to

make provision for the attendance of its administrators at these annual conferences.

It might be well at this date that the Association make an effort to educate the many hospital Boards throughout the country in this direction. The money factor stands chiefest in all hospital considerations. But once it is clearly demonstrated and accepted that the small outlay incurred in sending one or more representatives to this annual meeting—each hospital board on the basis of economy only will consider it as an obligation in the interests of the institution that a way be found to send its administrators to these conferences.

Original Contributions

SCIENTIFIC MANAGEMENT IN THE HOSPITAL*

By FRANK B. GILBRETH, Providence, R.I.

It is impossible to give in a paper of this length much idea of a plan of management that takes as long to learn as it does to learn medicine or surgery. †Scientific management might be, perhaps, better defined as Measured Functional Management. It rests on the principle of applying accurate measurement to present practice, deriving from the results of this measurement and the observations made while taking it, the standard practice, and so dividing the work to be done that the standard practice may be carried out by those best fitted to do each part of the work. These being the underlying principles of the science of management, it is obvious that they are applicable to all fields of activity, and our investigations prove conclusively that the hospital can avail itself of this science with greater results than have been obtained in the industries, where the science was first discovered and applied.

It may be difficult for you, who are primarily interested in the hospital, to realize this fact, for the reason that most of the books as yet written on the subject of scientific management are written in the vocabulary of the shop. At first reading you may find difficulty in transferring the things there stated into the vocabulary of the hospital. However, having spent years of study in the theory and practice of management of the industries, and having also spent years in observing hospital practice and in studying hospital problems, we are able to tell you with authority not only that the same laws which govern efficient shop practice also govern efficient practice in the hospital, but also that many of the problems involved are not only similar.

*Delivered at the American Hospital Association, St. Paul, Minnesota.

†See "Psychology of Management," Sturgis and Walton, 31 West 27th Street, New York City.

but identical, and that many of the solutions which we have found to those problems in the shop can be carried over bodily into the field of hospital management. The problems of transportation; problems of assembling; problems of enforcing and maintaining system, orders and discipline; problems of motion study, time study, and standardization; problems of teaching; problems of synthesizing these elements into methods of least waste; all may make two apparently dissimilar and unrelated lines of activity so closely akin that a successful solution in one case can be applied with little or no change with equal success to the other. You can recognize at a glance that all of these problems stated are to be found in hospital management, and that it may be possible for you to save much time and effort by becoming acquainted with efficient practice in the industrial world.

At first glance the hospital offers a particularly difficult field for scientific management, the reason being the difficulty in determining units of measurement. As a matter of fact, the problem of the hospital is less difficult than that of the industries because of the fact that the field contains a larger percentage of highly educated men and women, who are, therefore, better able to appreciate the scientific method applied to their problem. Moreover, hospital workers have not been led to the false belief that "small individual outputs are best for all workers, because small outputs make more work for all." Again, hospitals do not have the fierce financial competition for existence that the average business has, that makes it frequently necessary that all changes shall immediately, as well as ultimately, be financially profitable. It is natural that scientific management should be developed first in the industries where the pressure of the need for survival is most forcibly felt. By the same reasoning it will go into the hospital last, for when they "run behind in the hospital and need more money, they just go out and get it." Again, in the average hospital the various departments are not so closely related but that one or more can be subjected to scientific management, and features can be installed without seriously affecting the others. This allows not only of ease of attacking the large problem at several points, but of standardizing the separate results, and of

installing the successful methods with no loss of time in other departments.

There are several concessions which you must make at the outset before you can expect to do any valuable work in introducing the science of management into the hospitals.

The first is that you must submit to having accurate measurement applied to your present methods and practices. You must recognize that for ages there has existed a disinclination not only on the part of surgeons and doctors, but on the part of all those connected with the hospital, to allow their work to be inspected and the methods and the results to be measured. This accurate measurement for the purpose of analysis of methods into their elements, and synthesis of the least wasteful elements into a standard is the absolute prerequisite of any further work, and you must make up your minds to submit to it at the start, and not consider such accurate measurement an impertinence or as unprofessional.

The second concession that must be made is in the willingness to allow a man not trained either in surgery, medicine or hospital management to apply the measurement and determine the resulting standards. This necessity is a question of the present only, or of such time as hospital managers shall have received training in the science of management. Ultimately, of course, it is expected that the work will all be done by men trained both in hospital practice and in the science of management. At present no men with such combined training are available, and you must be satisfied to be taught the method of procedure by men trained primarily in the industries. This you will doubtless be willing to do, as soon as you realize the likenesses in all fields of activity, or have actually observed the improvements that can be achieved.

The third concession to be made is the recognition of the value of the standard that has been derived by such methods as motion study. We can show you pictures which illustrate plainly the fact that standardization such as is used under scientific management is to-day practically unknown in many parts of hospital management, and especially in the operating room. You would see in these pictures not only that the "set up" for similar cases differs to a surprising degree, that the

tools used, called "instruments" when used by a doctor, differ widely for operations, which, so far as is known at the time of "set up" (preparation), are identical, that the costumes vary, but that even non-essential details, which are in no wise governed by the desires of the operating surgeon, are arranged not only differently in different hospitals, but also by different members of the same hospital corps and by the same members at different times. It is, however, not necessary for us to show you such pictures, because you yourselves could, perhaps, supply more examples of this lack of standardization than we could give you. In the hospital, as in all other centres of activity, there is some one best way for doing each thing that is done, but *the complete best way is seldom in the consecutive acts of any one person*. We must therefore attempt to find this best way, that large practice with comparatively few standards may be had, that the teaching, installing and revising difficulties may be reduced to a minimum. Various articles in hospital literature and conversations with hospital authorities lead us to think that the "follow up system" is believed to be scientific management. The "follow-up system" is but a very small portion of the problem. It bears about the same relation to scientific management as a "shingle does to a house." The "follow-up system" makes for better surgery and treatment. Scientific management's first aim is to install a self-perpetuating system for standardizing and using the best of present knowledge and practice. Then, with such standards for a base line, inventing downwards is discouraged and eliminated; the trend of progress is thus ever upward. At such a time the "follow-up system" will produce the greatest benefit.

The fourth concession to be made is that no one man is fitted to handle every kind of function of hospital management, and that the work will be better done if it is divided or "functionalized" and each division put in the hands of a man specially fitted and specially trained to do the work of his function. There has been a feeling prevalent that the surgeon is, because of his severe medical and surgical training, fitted to handle any and every part of hospital management. This feeling is gradually being broken down, and it is becoming more generally realized that the doctor's training, as such, in no

way fits him for management or to manage, and that the management of the hospital should be handed over to a specialist, a trained manager, who can relieve the doctor of much work for which he is not fitted, and for which he has not been trained, and can thus allow him to devote his time entirely to such work as he can best perform, and get the best results and cause the greatest number of happiness minutes. While many of you to-day exemplify the new idea in hospital management, in that you have received late special training to become the heads of institutions, yet many of you must acknowledge that the men working under you in the various departments are not specialists, in the general, and not the medical sense of the term, and are not specially trained nor particularly fitted to do the work assigned them. When proper standards are determined, your work must be so divided and assigned that each man in the organization will do that work only which is the highest valued and most efficient work that he is able to do. This short outline will give you in a few words what it is necessary to do at the outset in order to undertake to install the science of management in a hospital.

You will probably immediately ask, "What application, then, have functional foremanship, time study, motion study, standardization, theory of notification, and scientifically selected personnel and method to pay to do with the hospital problem?" These are all methods or devices for measuring the units, making the standards, or insuring that the standards be maintained and continuously improved after they are once established. If you keep this idea clearly in mind, you may go through the existing literature, and find that all the theory and the practice of installing the science has a direct application to your field, and that many things may be done by you immediately.*

A first step that we recommend is taking a survey of your present practice and of the members of your organization. In the industries we always state this first step as "reducing present practice to writing." You will be surprised what improvements will suggest themselves to you as a result of seeing in cold ink exactly what you are now doing in each department.

*See "Motion Study" and "Primer of Scientific Management," D. Van Nostrand, 25 Park Place, New York City.

While you cannot hope to reduce your management to a science without years of application to the problem, and without direction from a management specialist, you can at least make a beginning.

Begin, then, to reduce your present practice to writing without any idealization, and to determine in your own minds exactly what the work is that you are doing in your hospital; what **lines of activity are included**; and what kinds of work each member of the organization is doing. Then attempt to determine how many different kinds of methods you are at present employing for doing the same thing, and exactly which methods you consider best, and, therefore, worthy to be carefully measured and used as a starting point for a permanent standard. You will probably be surprised to find that you have not one place where you have a standard that you would care to have go before the world as the standard that you recommend. Begin next to observe these various kinds of work, to see the units by which each kind of work could be measured, the different methods that are being used in doing the work, and the different devices which are at hand or in use. We can tell you at the outset that you will be astounded to see how many methods you are using, and how many different kinds of devices are on hand for doing exactly the same kind of work. Remember always that the larger the number of different kinds of devices the less practice and the less skill you will have with each. You will also be astounded to find upon what principle your work is divided, or, in many cases, that your work is not divided according to any principle at all, but that miscellaneous duties are heaped upon many members of the organization according to whether or not they have any more spare time. It is your task to decide which methods and which devices shall be first submitted to accurate measurement as possible starting points for the determination of the standards, that will be at the same time the most potent object lessons as to what can be done under **scientific management**.

The second piece of work which you can do at the outset, and which may be done simultaneously with the first, is a study of the members of the present organization as related to one another in your organization chart, which is a graphical por-

trayal of what exists, to the end that you can visualize exactly what is the present state of the division of labor of your working force. At the head of this chart you will put your hospital superintendent, and under him you will put each member of the organization, connecting each individual with the others according as his duties relate him to them and the paths of authority. With data of your present practice and your organization chart, you will have your problem clearly before you. If you do not put a management expert in to make this survey, you will get the next best results by having each member of the organization, so far as he is willing to co-operate to this extent, write down his own practice of his duties, and, where this is not feasible, appointing some member of the organization, whom you know to be observant, to make a close study of the practice of the individual and to record it for him. In any case it will be a valuable check to have the work even of those who are making records for themselves observed and described by an unprejudiced observer.

In selecting such methods and units as you desire to submit to accurate measurement, observe and compare the motions used in the various methods, and the amount of fatigue caused. It may be of interest also to know the "over all" time, though this must in no wise be confused with "time study," and can only serve, in the final analysis, as a base line from which to start your learning curves and your progress. You might be interested to know that probably no present methods and even no present cycle of motions is the one that you will ultimately decide to use. The ultimate method will be a synthesis of the best elements of all methods submitted, but you will take most satisfaction out of this ultimate method when you can compare it with a carefully made record of the old method, and note the exact changes and improvements.

With regard to the ultimate organization charts, it is possible for us to give to you our functional chart which illustrates the functions and paths of authority under scientific management, so that you may visualize for yourselves exactly what you are trying to do, and the sequence of steps in making the changes.* The aim of this chart is to show not only how the

*See "Applied Science," of Toronto University, March, 1912.

work should be divided, but how the individuality of the workers should be conserved and utilized. There is probably no doubt in your mind as to the desirability of functionalizing the work, and determining not only the kind of work, but the pace at which work is to be done. Under present conditions in the hospital, there is usually little or no data as to the pace or the fashion of work. The window-washer usually takes on the fashion of work of the surgeon, and the laborer who proceeds to get ready to undertake the beginning of his "operation" of sweeping a corridor looks at the broom and pail of sawdust with quite the same expression and mannerisms that the doctor uses when he looks upon the etherized patient, and is apt to perform his work with the same disregard of methods of least waste as the surgeon may use in performing a critical operation. The point here is *not* that the surgeon should speed up his work. On the contrary, he should be so relieved of everything but his proper work that he may be able to slow down critical work to as great an extent as is desirable. The point is that a large amount of work done in the hospital is in no way a surgical or medical problem or of a critical nature, and there is no excuse for the prevalence of but one fashion of doing work for the whole establishment. Here is a typical example of where the methods, devices, standards, tasks and methods of inspection already derived by motion study and time study in the industries can be taken over bodily.

Most workers in the hospital acquire, together with doctors and nurses, the feeling against specialization in the functions, and the belief that the giving up of general duties tends to impair permanent usefulness. They are apt to believe that those who are willing to do things entirely outside of their own special duties shall be recognized as having special merit only in their performance, while in reality the specialist in the function is the man of greatest usefulness and earning power to-day. Those who are doing their work with greatest efficiency for the organization as a whole can afford almost no time for work outside that specialty at which they are particularly efficient. This fact you must accept, and must recognize also the necessity for specializing such functions as inspection and discipline. We emphasize this particularly, because in the hos-

pitals these are the two fields in which specialization is most opposed. Without proper inspection no accurate records of performance can be obtained. Without specialized discipline no true co-operation can be obtained, and co-operation, after all, is the maintaining force.

The following are the principles of functionalization to which you must ultimately conform:

1. The planning must be separated from the performing.
2. The superintendent must have such a training that he is capable of investigating conditions all through the hospital on the *exception principle*; that is to say, he must, when a case of peculiar success or failure is brought to him, be able to deduce the cause and to see that desirable results only are repeated.
3. The planning work must be divided into four parts, one of which shall include prescribing *who* shall do the work, *where* it shall be done, and *when* it shall be done; the second of which shall prescribe *how* it is done; the third of which shall keep account of *how much* time it took to do it, and how much it cost; and the fourth of which shall take care of the function of discipline and employment and induce and maintain co-operation by explaining the "*why*."
4. The performing department must also be divided into four parts, the first and second of which shall consider different grades of teaching and the transference of skill and maintaining standard conditions; the third of which shall consist of preventing breakdowns and repairing; and the fourth of which shall consist of inspection.
5. A study of individuals to determine who had better work under each function, and to what extent, will do much to hasten the speed of installation.

All of this work you can begin immediately. It would be futile at the present time to outline to you in detail the further progress of installing scientific management in hospital work, for several reasons. The first is that the process, as so far outlined, is absolutely a preliminary to everything which follows. The second is that, until you have done some preliminary work, it will scarcely be possible for you to understand the details of the installation period.

It remains but for you to ask what will be the ultimate savings through the introduction of scientific management. They will be such savings as always result when for judgment, personal opinion and guess work, is substituted the use of accurate measurement. The doctor now uses such measuring devices as a watch, thermometer, etc., but there are many more measuring devices that are just as necessary for purposes of obtaining efficiency. Scientific management will cause elimination not only of waste of materials, but of waste of human effort, which is, in the final analysis, the most pitiful waste of all.

When your management becomes a science, there will result greater efficiency in you as individuals, and in the great work of the hospitals to which you all devote your lives.

All great revolutions follow the same steps of progress, namely:—(1) Attention; (2) Interest; (3) Action.

We have been very fortunate in obtaining the *attention* and *interest* of such well-known leaders as your president, Dr. Howell, and some of the other leading surgeons of this and other countries; but we have not as yet been able to obtain any *action* to amount to anything, because of the fact that the *entire structure upon which hospital management is built is wrong*. As the incentive, so will the result be, sooner or later. The incentive necessary to adopt the best from the industries does not exist at present.

Selected Articles

MUNICIPAL HOSPITALS

THERE is a slow movement toward the municipalization of hospitals, following that of schools, water supply, street railways, and the like. Apropos of the evolution of the process, one of our well-known hospital men writes to a confrere who is exercised on the subject:—

“It seems to me the way New York City is meeting the problem is almost ideal. There Bellevue and the allied hospitals take care of that great mass of patients that are suffering from such diseases as rheumatism, common pneumonias, typhoids and the other diseases about which there is very little controversy or obscurity, and that are to be treated in an ordinary way, but the city pays a lot of private hospitals for taking care of certain patients and I take it these patients are the ones that are out of the ordinary, as well as emergency cases, and, of course, there is always a great overflow that Bellevue could not take care of on account of its crowded condition. If the facts are not just as I have stated them, as applying to New York City, it is because they have not arrived at quite that stage yet, but undoubtedly that will be the final solution of the matter.

“Winnipeg recently has finished its new hospital and the city has made a contract with the hospital for the care of its sick at a specified sum per patient per year. There are a good many other cities that have a similar arrangement and I don't see why that sort of thing is not pretty nearly ideal. A city hospital controlled by a political board that rotates as administrations come and go must lack ideals and definite ambitions. They must also be subject to political appointments, which mean inefficiency. They will also be subject to graft, which means poor care of patients. If another arrangement than this is created—that is if the municipally controlled hospital is placed in the hands of a commission with continuous tenure of office, then there is merely a masquerade of the privately controlled hospital, but the genuine is always better than the counterfeit.

"In a growing and not decadent city more hospital facilities are going to be required. The city hospital will never be well conducted, its facilities will never be good, its equipment will never be elaborate, or even satisfactory, and, therefore, the work it will do will be more or less a housing of the wholly undesirable patients from the standpoint of any privately controlled institution. It seems to me if one let the matter take its course and let the city build its own hospital, if it wants to, and then create and maintain your own hospital, with those ideals that you and I stand for, there can never come a time when you will lack money for your hospital or when a patient will not make any sacrifice to get into your hospital away from the city institution, at least, I find that to be the case here. This hospital has 66 per cent. charity patients and it is supported entirely by private subscriptions. We have never been able to care of all the patients who apply, and never needed a dollar, because our support is most liberal. To threaten a patient in this institution with the county hospital because of some misbehavior is like a death sentence and they behave thereafter."

A New York hospital medical man writes thus:

"I am certainly surprised to learn there is no municipal hospital in your city. In my opinion every city should have one, and be responsible for its management for the care of all kinds of cases of its unfortunates. It should be provided for the care of all diseases, i.e., of the eye, ear, contagious diseases, maternity cases, etc., I should think it would be the best thing for every physician to approve of it and not be neutral or opposed to it."

A Brooklyn man writes:—

"In the City of New York and Borough of Brooklyn, we realize how difficult it would be to handle the work of the city if it were not for the great municipal hospitals. Moreover, I do not think that any one who is not connected with the municipal hospitals would for a moment place them in the same class with the better class of private institutions; and yet it must be said that they are doing a very great and important work."

Society Proceedings

THE SECOND CALL TO THE LAND OF SUNSHINE AND FLOWERS

The American Hospital Association will meet at the hotel Inside Inn, in the City of San Francisco, June 22, 23, 24, 25, 1915.

This is your opportunity to attend the greatest convention of hospital workers in the world. You will derive much benefit by taking part in the discussions of the papers at the meetings of the Association. You will also be privileged to mingle with hospital workers from the north, east, south and west. Difficulties which have been perplexing you for some time may be solved by a few minutes conversation with some of the hospital superintendents.

For the benefit of the members a special train will be run from Chicago to San Francisco. The fare will be about \$60. Better write Mr. Bacon, Superintendent Presbyterian Hospital, Chicago, Ill., for your reservation.

The President is putting forth every effort to make the programme this year one of the best ever presented.

Hospital architecture, training-school problems, housekeeping and dietetics will be discussed at this convention. In fact every phase of institution work will be fully covered.

In order to take advantage of this great opportunity you must be a member of this mighty organization.

Boards of trustees are choosing their superintendents and superintendents of nurses from among its members.

It will be to your advantage to become a member of the American Hospital Association to-day. Why not send your name to the undersigned now.

There are over 6,200 hospitals in United States and Canada. The membership of the Association is about 1,100. This means that over 5,000 hospital superintendents are not connected with this organization.

The transactions of the St. Paul convention are completed. A glance at this report shows that a greater part of the discussions took place in the Small Hospitals Section.

One of the special features of this year's meeting will be the Non-Commercial Exhibit. It is to be hoped that every hospital will co-operate in making this exhibit a real success by forwarding any article which they have found useful to Miss Lydia H. Keller, R.N., Chairman, Northfield, Minnesota. Let everybody contribute something to-day.

Do not forget if you are not a member to send your application to the Secretary to-day. The fee for active members is \$5.00. The fee for associate members is \$2.00. The initiation fee is \$5.00. This includes the first year's dues.

The Association needs you to-day, you may need it to-morrow.

SHALL THE GOVERNMENT AID?

The secretaries of the British Hospitals' Association have addressed a letter to the British hospitals as follows:—

"Dear Sir,—The Council of the British Hospitals Association have considered the varying conditions under which the voluntary hospitals throughout Great Britain are receiving wounded soldiers for treatment. It is evident that arrangements which the War Office has made with these institutions as to payment vary considerably—for instance few, if any of the hospitals in London have asked for any payment from the Government, whilst most of the provincial hospitals expect to be paid at rates which vary from 2s. to 4s. per patient per day.

"In these circumstances the Council request you to favor them with the views of your Committee, as to whether an application should be made to the War Office to deal upon the basis of a uniform scale of payment with all the voluntary hospitals in which payment is desired. They understand that some such arrangement has been made in reference to the private hospitals provided by the British Red Cross Society and other similar organizations.

"The Council have also had under consideration the question as to whether an application should be made to the Inland Revenue authorities to remit the duty on rectified spirit used in hospitals in the making of tinctures, galenicals, etc. This matter has been referred to a small committee for further consideration and enquiry."

Hospital Intelligence

CANADIAN

An Isolation hospital is being built at Prince Albert, Sask.

Alterations and additions are being made to the Hamilton City Hospital.

An addition is being made to the Provincial Hospital for Insane, Battleford, Sask.

A new hospital has been built for the Ruthenians at Canora, Sask. It will be named the "Hugh Waddell Memorial Hospital."

The St. Francis Hospital has been opened at Smith's Falls.

An addition is being made to the General Hospital, Vancouver, B.C.

A hospital will be built at Summerland, B.C.

The Royal Columbian Hospital, New Westminster, B.C., has been formally opened.

A tuberculosis preventorium is to be built in Montreal.

A new isolation hospital is to be built at Fredericton, B.C.

A \$100,000 addition is being made to the General Hospital at Brandon, Man.

A new hospital building is to be erected at Nelson, B.C.

A new hospital is to be erected at Edson, Alta.

A three tent hospital has been erected at the junction of Ashcroft, Clinton and Lillooet roads for the G. T. P.

A hospital is to be erected at Estevan, N. W. T.

Improvements are being made in the Infectious Diseases Hospital, Halifax.

A new hospital will be built in Sidney, N.S.

An addition is being made to the St. Joseph's Hospital, Port Arthur.

The Sault Ste. Marie General Hospital is to be repaired.

A hospital is to be erected at Melville, Sask.

AMERICAN

A new hospital is to be built at Superior, Wis.

Mr. Henry Ford, the automobile manufacturer, has taken over the Detroit General Hospital. The work of construction will proceed at once.

Plans are being drawn for a hospital at Plymouth, Mass. The cost is to be \$80,000.

An addition is to be made to the Knickerbocker Hospital, formerly the J. Hood Wright Hospital, of New York City.

The Steinways have contributed \$1,500 toward a fund for St. John's Hospital, New York City.

York and Sawyer, architects, of New York City, are building an addition to the Orthopedic Dispensary, New York City.

Dr. J. Lee Hammond has been appointed Superintendent of the County Tuberculosis Hospital, at Ancora, N.J.

A general hospital will be built at Holtsville, N.Y., with wards for tubercular patients.

An adequate hospital for Blackwell's Island Penitentiary is being advocated by Dr. O. F. Davis, for the prisoners addicted to drugs.

A \$750,000 hospital is to be built at Canton, China. Dr. Lew Chee, of Pekin, a graduate of Jefferson Medical College Hospital, has been inspecting the hospitals of the United States getting pointers.

Mr. Donald McRae has presented the Alpena Hospital Association (Mich.), with a site for a hospital.

A \$500,000 addition is to be made to the Homeopathic Hospital, Baltimore, Md.

A maternity hospital is advocated for Rutland, Wis.

The sum of \$150,000 was raised for the St. John's Long Island City Hospital in a whirlwind campaign.

A new sanitarium has been erected at Perrysburg, near Buffalo.

The sum of \$100,000 is being raised for a hospital at Zanesville, O.

General Gale has donated a hospital at Haverhill, Mass.

Nearly \$50,000 have been raised for a hospital building at Alexandria, Va.

A tuberculosis hospital is talked of for Keokuk, Ia.

It is proposed to build a tuberculosis hospital for Chautauqua County, N.Y.

Plans are being prepared for a hospital at Williamsburg, Va.

Brooklyn Hospital new buildings will cost \$730,000.

The Holy Innocents' Hospital, Birmingham, Ala., has been changed to the Children's Hospital of Birmingham.

The Samuel Grabfelder Medical Building of the National Jewish Hospital for Consumptives, Denver, is being constructed.

A new dispensary for sick children is opened at Kewanee, Ill.

The Children's Dispensary and Hospital Association of South Bend, Ind., has been incorporated.

Dr. Karl Van Norman has been appointed first assistant to Dr. Winford Smith, Johns Hopkins Hospital, Baltimore.

The floating hospital of St. John's Guild, New York City, is serving its eighteenth year. 1,200 children are carried each trip.

St. Mary's Infirmary, McAlester, Okla., has been opened.

The corner-stone of the Brownsville General Hospital (Penn.), has been laid.

Mt. Sinai Hospital, Philadelphia, is enlarging.

The new St. Francis Hospital, Indianapolis, has been dedicated.

A sanatorium has been established at Attakapas, La.

The Johns Hopkins Hospital will celebrate its 25th anniversary in October.

The Noyes Hospital will be erected at St. Joseph's, Mo.

Dr. Irving Fisher, Superintendent of the Presbyterian Hospital, New York, for 23 years, has retired. Dr. Young takes his place.

A hospital council has been established in Cleveland, to decide definite policies and lines of action as regards economic and social services. The council consists of two representatives from each of the fifteen general hospitals.

A new building has been added to the American Oncologic Hospital, Philadelphia.

A new \$100,000 maternity ward is being erected for Mt. Sinai Hospital, Milwaukee.

Book Reviews

Fever, its Thermotaxis and Metabolism. By ISAAC OTT, A.M., M.D., Professor of Physiology, Medico Chirurgical College, Philadelphia. 168 pp. Illustrated, 5 x 7 inches. Paul B. Hoeber, New York, 1914. Price, \$1.50, net.

This book is a splendid review of the experimental results of many workers on the problems of fever. It contains much of the author's own experience. Especially to be noted is the discussion on the most important contribution to the subject by Lichachuff and Avoroff. To one who studies a particular branch of a subject by the method of physiological experiments on the general subject, this book is extremely valuable.

Practical Nursing. A Text-book for Nurses.—By ANNA CAROLINE MAXWELL, Superintendent of Presbyterian School of Nursing, and AMY ELIZABETH POPE, formerly Instructor in Presbyterian School of Nursing. G. P. Putnam.

In the opening chapter of this book the qualifications necessary for the making of a good nurse are considered under three heads: physical, mental and moral. Professional etiquette and ethics are touched upon, and in conclusion the Florence Nightingale pledge is given.

Important facts in the history of bacteriology, which show the advance this science has made through the years, is set forth in the chapter devoted to that subject. Various classifications of bacteria are given and two classes of fungi—yeasts and molds—comparable to bacteria are described. The nature and value of a large number of disinfectants and germicides follow.

A great deal of practical information, useful for teachers and pupils, is given in chapter devoted to care of the ward and the patient. In detail is described the handling of patients in the easiest way for patient and nurse, of changing sheets and

mattresses and seeing to patient's comfort and well-being generally.

The subject of treatments is gone into thoroughly. Different methods of procedure in giving treatments, articles required and technique employed show an intimate knowledge of the subject.

Twenty-four important rules in connection with the care and giving of medicines are enumerated—methods of administering drugs by injection, inhalation and inunction are described.

The details of preparations for various operations, with reasons for procedure, are followed by important items in the care of patients after operation; complications that follow operations, as asphyxia, hemorrhage, shock, sepsis, peritonitis, pneumonia and thrombus are described.

The chapter devoted to wounds and surgical dressings describe the physiology of healing and the nature of some of the common abnormal conditions that occur in wounds: Precautions necessary to avoid infection in the dressing of wounds and methods by which instruments and utensils are made and kept fit for use are given.

Operating room technique and treatment of emergencies are chapters that contain information of real practical worth. A synopsis of important diseases, their symptoms and treatment, is given.

The chief uses and value of foods, infant feeding and diet in disease are taken up in chapter on foods.

No pains, apparently, having been spared in bringing the book in line with the latest developments in nursing, it will doubtless find favor among nurses.

Anatomy and Physiology. By ELIZABETH BUNDY. Woman's Hospital, Philadelphia. Third edition, 408 pages, with 223 illustrations. P. Blakiston's Son & Co., Philadelphia.

This book is intended for use in training schools and other educational institutions for nurses. Without going too deeply into the details of either branch, it contains the essential points of anatomy and physiology. For instance, after a descrip-

tion of the organs of the alimentary system, one finds an outline of the processes of digestion. Similarly, the chapters dealing with the heart and greater vessels are followed by one on the functions of the blood. The subjects are dealt with in short concise paragraphs which are well arranged and easy to read. The book is well illustrated and should be very useful for nurses.

First Aid Dentistry. By E. P. R. RYAN, First Lieutenant. Dental Surgeon, United States Army. Contains 80 illustrations. Published by P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia. Price, \$1.25.

This little book of some one hundred and fifty pages is a valuable aid in the present time of war. The book is intended for medical and dental practitioners and for nurses. It is especially interesting for hospital corps men of the military service. The methods described in this book are methods that are limited for first aid, and are intended to relieve the patient until more permanent work can be done. Among the several chapters contained in the book are those treating with septic conditions of the mouth, and dental pain arising from inflammation of the pulp, putrescent pulp, and dental abscesses. There are also chapters on the treatment of inflammation of the pulp, putrescent pulp, abscesses and other parts. Chapter ten is taken up with neuralgia and its treatment. There is a chapter on fractures and dislocations of the jaw and their treatment. Chapter thirteen deals with extracting. The little book is just what it claims to be, and in that respect is very satisfactory.

Text-book of Anatomy and Physiology for Nurses. By DIANA KIMBER. The MacMillan Co., N.Y. Revised again, fourth edition, by CAROLYN E. GRAY, with many changes, additions, and new illustrations.

In its new guise this book is very voluminous, and will make an excellent reference work. Chapters have been added on points which were hitherto carefully omitted in all nurses' books.

and yet which they really should know. But it is difficult to make nurses' text-books efficient and at the same time handy and easily understood by the average first year high school girl. The ideal text-book in this subject is one from which a staff doctor may lecture and himself get the nurse's attitude towards her work, so different from his own. It will contain not more than 150 pages of the medium octavo size; and will be couched in simple language, such as the nurse hears on the ward. Every nurse has a keen interest in anatomy, therefore her text-book will not be her all-in-all. She has her ward observations, the operating-room, and the conversation of the attending doctors to clothe the scanty frame of a simple primer.

Recreations of a Physician. By A. STUART M. CHISHOLM, M.D., author of "The Independence of Chile." G. Putnam's Sons, New York and London, the Knickerbocker Press.

This volume consists of a number of essays, some of which have already appeared in well-known medical journals, or have been read before various societies.

The author claims them as the result of leisure hours; and in the first chapter he discusses the value of an avocation to the physician. The book evidences the fact that Dr. Chisholm has amply justified his contention that "if a man knows nothing but his specialty, he cannot even know that."

In the various essays he carries us over a broad range of subjects, the treatment of which reveal him as an appreciative and scholarly student of historic literature. Probably those essays dealing with the literature and ethics of medicine are of most interest to members of the profession; but such themes as "Banquo"; The Picaro; The Symbolism of Names, comprise a delightful series of scholarly and discursive ramblings that appeal to all lovers of historic literary by-paths, both within and outside of the profession.

In type and binding the volume is worthy the large publishing firm from which it issues.

The Hospital World

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No. 4

Editorials

THE SYPHILITIC PROBLEM

THE discoveries within the last decade of the spirochete pallida, of the Wassermann reaction for the disease it causes, and of that wonderful remedy salvarsan, mark a remarkable epoch in the study of zoology, hematology and syphilology.

These discoveries are of inestimable importance to humanity—particularly to that large one-twentieth portion of the race who, by heredity or through exposure, have been the victims of this dread scourge.

The practical application of the Wassermann and the administration of 606 have proven that syphilis is much more prevalent than was supposed. It is now known that all paretics and tabetics are sufferers from syphilis. One eminent pathologist states that all cases of angina pectoris which he has autopsied have shown luetic post-mortem lesions; and the majority of heart affections in patients over forty, he avers, are due to syphilis.

It is now certainly believed by the advanced syphilographers not only that many people are unconscious sufferers from this disease, but also that many children who are below par in health are so because of the invasion of the spirochete.

It used to be thought that the spirochete could not make a host of the *genus homo* without producing a hard chancre. This is now known to be erroneous.

The organism has been found in a genital abrasion within three days after exposure. It is believed that in many people who are the unsuspected victims of the disease, the symptoms, if any, are more or less marked.

The spirochetes have been found, in so-called cured cases, in situ in the heart muscle without having produced any marked tissue changes.

The unmistakable prevalence of the disease in European countries has long been known to medical men. The first question asked of any patient entering most

European hospitals or applying for relief at the out-clinics has been, Have you ever had syphilis? Unfortunately, such patients have hitherto been too casually treated, not only by hospitals and dispensaries, but also by physicians in private practice. A course of mercury and the iodide of potash has been prescribed, but the necessity for long-continued treatment has not been emphasized, while too little warning has been given regarding contagion. The result has been that the patient, growing tired of medication, or unable to pay for continued treatment, has given up his visits to his medical adviser, grown careless about sanitary precautions, and developed some of the deadly tertiary symptoms. In this condition he has passed on the disease to his family, or even to outsiders through the public drinking cup, the common roller towel, or other unsanitary public utilities.

Then, too, there must be considered the delinquencies of our American hospitals in denying admittance to victims of this disease, either through fear of contagion or abhorrence of the prejudged moral condition of the patient. This attitude of our hospitals has done much to shorten the lives of such patients and to spread the disease through the community.

The viewpoint of the profession to-day concerning the disease, its cause, course and cure, compels an altogether different attitude. The health boards and the practising physician are beginning to recognize that they must work together in eliminating this disease, as in others of better known but less deadly contagions.

All suspected cases of syphilis should be reported to the boards of health, and where the physician is uncertain and wishes to establish the diagnosis, the health board should supply the Wassermann and the 606.

Where the patient is too poor to pay for these the state or municipality must, for the protection of the public, supply both. These cases demand constant supervision until cured. The family and fellow workers must be protected absolutely.

Congenital cases must also be discovered and treated at the earliest possible moment in order to prevent blindness and deformity.

Hospitals must open their doors to all necessitous cases. Such can be segregated and treated on the same aseptic and antiseptic principles as are cases of any other contagious disease, by boiling all dishes, instruments, the use of gloves, etc.

By a combined effort on the part of the boards of health, the hospitals, the medical profession, this disease, like consumption, may be practically stamped out within the next few decades.

But many apostles are needed, and needed now.

BLANK STATIONERY FORMS

WITHIN the past two decades a marked advance has taken place in the matter of providing hospital records, requisitions, receipt forms, and blanks of all sorts. From a state of poverty in this respect some institutions now appear to possess a plethora.

The American Hospital Association has done much to bring the matter to the attention of hospital workers by the exhibition of forms used by several leading hospitals. But in looking over the exhibition it becomes a matter of wonder to the uninitiated why some institutions require so many more forms than do others; why some of the sheets used for similar purposes present so great a disparity in size; why the sizes are so varied in the forms of the one institution; why some hospitals use vari-colored paper while others hold to white; and so on.

A little thought shows how much improvement might be made in regard to these blanks.

A first suggestion is that the name of the institution should appear at the head of every form. This is often omitted. Then there should be shown as a subhead the name of the form so that anyone may know to what use it is applied. This was brought home to the writer upon one occasion when he found it necessary to return a blank chart to one of our leading hospitals to inquire its purpose.

A third suggestion is that all forms should be numbered consecutively. This is convenient to the printer for reference and also for making requisitions. Of course, the printer usually has a number of his own, which, with his imprint, often appears inconspicuously on the front of the form. The printer should be satisfied with his initials only placed next his number.

Another point worth while is that these forms be standardized in size. They might comprise a series of three sizes. The convenience of uniformity in shape and size is evident.

As to color, there appears no sufficient reason why uniformity in this respect also should not be observed.

A suggestion might be made to the Committee on Programme of the American Hospital Association, that some member who has made a special study of this question present his findings. Or, the Association might appoint a committee to secure sets of the most recent forms used by representative American and Canadian hospitals, select the best from each, and make a recommendation to the Association regarding the matter.

In addition to the details of size, color and form of these blanks, there is also the matter of the text. This committee would see to it that the text be arranged in the best order, sufficiently concise without sacrifice of clearness.

If standardization could be secured in this important feature of hospital service it would tend not only to economy of time, of space, and nerve energy, but would result in a marked saving of hospital funds throughout America.

A LABOR OF LOVE

VOLUME XVI of the Transactions of the American Hospital Association has been issued from the office of the Secretary, and is doubtless by this time in the hands of the majority of the members. It comprises the verbatim report of the papers and proceedings of the Association in conference at St. Paul, Minnesota, held in August of last year. These sixteen volumes constitute

a valuable index of the growth and progress of the Association. They also reflect markedly the advance of hospital science during that period.

This journal has dealt so often upon the value of these transactions to all hospital workers, that it may not come amiss to indicate another aspect little considered by the members, namely, the labor involved in producing these annual volumes. The Secretary, upon whom devolves the labor of publication, secures as many of the papers as possible before the conference closes. Some, however, evade him and are only obtained after much correspondence. The stenographic report of discussions is usually on hand within two or three weeks after the close of the conference. This is sent to those who took leading parts in the discussions, for desired alterations or corrections. And herein lies the best proof of the spontaneity of the discussions which follow the papers, for the changes made from easy colloquialism to preciser form are many and emphatic.

To obtain the complete return of the discussions is often a slow process, some delinquents being moved to action only by the long-suffering Secretary's threat of letting their especial discussions pass unrevised.

Then comes the dealing with printers; the study of type, of paper, of cover, of cost, of technical set-up, of illustrations and inserts. And when these are settled and the printing is fairly under way, the Secretary begins his long and monotonous task of revising the membership list in its double classification and of compiling an index. Woven in and out of these undertakings is the constant proof reading.

When the thousand or more copies are ranged before the Secretary ready for mailing, he views them with a satisfaction that somewhat obliterates the weary labor. He feels that his work has been well done, and that the volume worthily represents the work of the Association.

After the copies are mailed, the Secretary waits rather eagerly for the first acknowledgment. It comes, and reads as follows:—

Retreat for Hospital Supts.,
Eloria, Mass.

Dear Sir,—

I have received my copy of Transactions after a long wait, and am surprised to find that my name is put down in the membership list as Miss *Edith* James, whereas it should be Miss *Edythe* James. Also I have moved, but forgot to inform you. Please correct.

Original Contributions

HOSPITAL AMBULANCE SERVICE

BY MASON R. PRATT, M.D.

Superintendent, Hospital of the Good Shepherd, Syracuse, N.Y.

IN this paper on ambulance service I have not attempted to go into details to any extent, as it is usually best for each hospital to arrange the details according to local conditions.

Owing to the rapidly increasing number of patients who are being admitted to hospitals, the question of ambulance service is becoming a very important one. The hospital must first consider whether there is some adequate outside service at its disposal, and if not, will such a service, controlled by the hospital, be of sufficient advantage to the hospital to warrant the expense of running such a service. In almost every case, I believe, the annual cost will exceed the direct receipts from patients, municipality or other sources. It is probable, however, that the ambulance service will bring to the hospital an increased number of patients and in this way become a source of income to the hospital.

In some cities of the second class the city runs its own ambulances, supplying a surgeon for each ambulance. The call is usually sent to police headquarters and the ambulance sent out by this department. The patient is taken to whatever place he desires within reasonable limits.

Sometimes a liveryman or an undertaking establishment runs an ambulance service at a moderate charge to each patient or to the hospital, which collects from the patient. In a city or town having more than one hospital, it is unfortunate that the ambulance service should be controlled by an undertaker, since, as a rule, he will cater to that hospital which in his opinion caters most to him. In other words, if he endeavors to bring patients to any particular hospital he expects that hospital in turn to recommend him as an undertaker to the relatives of

patients dying in the hospital. Such reciprocity, if attempted at all, is seldom satisfactory, since, as a rule, the relatives will select the undertaker whom they desire, and there is always the danger that charges of graft may be made against the superintendent of the hospital.

I have learned of one hospital which has bought an ambulance and loans it to a liveryman who supplies horses and driver, and takes all calls for the hospital. The charge for service varies according to the location of the call. Of this charge the hospital retains one dollar and the liveryman the remainder. This plan, I understand, has given satisfaction in the city where it is in use, but would not be successful in most communities where the need is for a free ambulance service.

When the hospital operates its own ambulance service, it must first meet the original cost of the ambulance; horses, if horse drawn, garage or stable, also necessary equipment, as stretchers, blankets, etc. Next, the annual cost of the service is quite large, including surgeon, driver, food for horses or gasoline and oil for automobiles, and the constant repairs which are needed.

In the larger cities the city government often pays the hospital a fixed annual amount either for the service or for each ambulance kept in operation by the hospital. In such cases the service becomes an emergency service as well as transfer service, and patients are taken to any hospital desired or to their homes within certain limits. With possibly a few exceptions I believe the cost of such a service is greater than the amount paid by the city.

When the hospital has definitely decided to install an ambulance, the first question which arises is—shall it be horse-drawn or motor driven. In practically every instance I would recommend an automobile ambulance. I can conceive, however, of places where a horse-drawn ambulance would be necessary, as a very sandy country as found in the South, or a locality in which the snow is usually very deep and of long duration.

In a city as far north as Syracuse, New York, a gasoline automobile can be run during the average winter without difficulty. During the past winter, the most severe in many years, the snow was at one time three feet deep on the level, and yet

our ambulance was prevented from taking calls during one day only. There were also one or two calls in the country which we could not reach, but the horse-drawn ambulance failed also. The greater number of calls which can be taken and the amount of time saved can easily be understood.

Electrically driven ambulances are to be given preference where the runs are short, the streets level and the snowfall is light. They are more simple in construction and do not require a very skilful or high-priced chauffeur to operate them. As they are usually equipped with hard rubber tires the expenditure for tires is small compared with that for gasoline cars. Another advantage of the electric car is that there is no danger of fire.

Dr. D. C. Potter, formerly Director of the Board of Ambulance Service of New York City, in a recent letter to a member of this Association, strongly favors the motor ambulance and considers the gasoline car far superior to the electric car. It is his opinion that an up-to-date motor ambulance will cost from \$2,000 to \$2,250, and that it should be run at a cost not exceeding \$1,500 a year.

He writes, "The Board voted in 1913 to make no new contracts for horse-drawn ambulances, that is, not to add any to the existing number." "The automobile ambulance will easily take the place of two or three horse-drawn ambulances and shows up equally well on long or short distances." He gives as his personal opinion "that an automobile ambulance costs so little more to maintain than any other kind of an ambulance that when its advantages are considered it is the only vehicle that an up-to-date hospital with a reasonable territory to cover can afford to consider."

In any case, the ambulance should be light, well ventilated, and comfortable to ride in. There should be plenty of room for the surgeon to perform any treatment called for on the journey.

Where horses are used at least two horses are needed for a one-horse ambulance and three horses for a two-horse ambulance. When one horse is used at a time, the change can be made as often as necessary, but where two horses are required, it is a good plan to work each horse two days and rest on the third

day. Where the service is especially heavy, four horses should be maintained. One objection to the horse ambulance system is the necessity of having a stable on the hospital premises. Even with the greatest care flies and stable odors are difficult to eliminate.

While the repairs on an automobile ambulance are numerous and expensive, especially in the line of tires, and the car must frequently be out of commission for short periods, yet this is offset to a large extent by the shoeing and sharpening of shoes in the case of horses, and new solid rubber tires for the ambulance wheels.

In selecting a motor ambulance the first question is, of course, the kind of car. While it is always best to select a car made by a company which has already made several successful ambulances, yet it is much more important that the company selected shall have a branch or repair shop in your vicinity. It is very simple to run down to the garage and get a new part even if the dealer has to take it from an exhibition car, as he usually is willing to do, to accommodate the hospital and keep up the reputation of his car; but it is very distressing to wait three or four days while a new part is coming from the factory several hundred miles away.

Never alter a car built for some other purpose in order to have an ambulance. If the body is enlarged, the centre of gravity is changed with relation to the chassis and the unusual weight on a given part will call for constant repairs. If the chassis is lengthened, it is weakened, and again constant repairs are needed. Be sure your ambulance is built for an ambulance from the ground up and there should be little trouble.

One of the greatest essentials of a motor ambulance service is a good driver. A poor driver can ruin the best ambulance in a very short time. It is not merely sufficient that he can run the car through the streets without accident to himself or others, but he must be able to make all ordinary repairs as soon as needed or your ambulance will be out of service much of the time and your reputation will suffer accordingly.

Always carry at least one complete extra tire and also a lantern, for although most motor ambulances are equipped with

electric lights, one can never tell when some accident to them may occur and it usually does occur when they are most needed.

It is advisable that both the surgeon and driver be in uniform, and that smoking on the ambulance be strictly forbidden. The driver, and I regret to say frequently the interne, fail to appreciate the difference between an ambulance and an ash cart, but the citizens do not.

There is one more point I wish to emphasize which is likely to be forgotten. The ambulance entrance to the hospital and the patient's reception into the hospital are of very great importance. The entrance should be so arranged as to insure quick and comfortable entrance for stretcher patients. It should be neat and clean and cared for the same as the main entrance to the hospital.

Do not keep a patient waiting. If the patient cannot be taken at once to his room or ward, at least have a nurse and orderly present when the ambulance arrives. While waiting for the doctor or while taking the admission history, or whatever your individual custom may be, give the patient the privacy of a room kept for that purpose instead of leaving him or her in the corridor, an object of interest for every passerby.

Society Proceedings

AMERICAN HOSPITAL ASSOCIATION—SMALL HOSPITAL SECTION

COST OF TRAINING SCHOOLS; AMBULANCES, FLOORS.

For some years there was a growing feeling in the American Hospital Association that insufficient attention was given to discussing topics in which small hospitals were interested. This voiced itself in the Detroit meeting. At the following meeting in Boston there was a profitable session devoted to questions relating almost solely to the smaller institutions. The man who took the most active part in this meeting was chosen chairman of the section, and presided at the Minneapolis meeting.

Following is a summary of the discussions:—

(1) Should the expenditures of the training school be kept separate and distinct from those of the hospital?

Dr. Moulder, Supt. M. E. Hospital, Indianapolis: It has never been the policy of the hospital management to keep the accounts entirely separate; although I have figured on the proposition quite frequently, and am able almost at any time to tell exactly what the operation of the training-school costs per day for each and every nurse. I don't think there is any advantage in keeping the accounts separate.

It costs the Methodist Hospital of Indianapolis in the neighborhood of a dollar a day to train their nurses. We have our nurses in five different homes in the vicinity of the hospital. Each one of those homes, or houses, accommodates about twenty nurses; in each one of those homes we have a supervisor who looks after the discipline of the girls or young ladies in that particular home, all of which makes it a little more expensive. I am satisfied it is more expensive than if we had them all in one house. We pay our nurses \$5 a month, \$3 in cash, and put to their credit \$2 at the end of each month. That \$2 pays for their uniform, their breakage, their books, ther-

monometers, and such articles as they use in their necessary work about the hospital. All of that now is charged up to the operation of the nurses' training school. We have a lady physician in the city who gives ten lessons in massage. She charges five dollars a lesson for a term. She usually has to have about two terms during the year, which would make in the neighborhood of \$100. That, too, is charged up to the training school of nurses.

"Should the expenditures of a training-school be kept separate and distinct from those of a hospital?" I would say, yes, (although we do not do that in the broadest sense), for the reason that you ought to know just what your training-school is costing you, just as you ought to know what the butcher bill and every other bill is in the hospital.

DR. PACKARD: The expenditures of the training-school should be kept as an absolute record in the management of any hospital. If the figures that the gentlemen quoted are correct, I should say that the maintenance is exceptionally low. In our hospital we have a training-school of fifty nurses, and our average for the past three months has been \$1.54 per day for the maintenance of one nurse in the training-school.

MISS THATCHER, of Cincinnati: We keep a very accurate account of the training-school and nurses' home, as against the hospital. I am unable to tell you just how much it costs us per meal for the nurses. Our average, though, I think, runs from \$1.50 to \$1.60.

DR. POTTS, Memphis: I would like to ask if the estimates made here of the cost of the nurses includes the rent or the expense of housing the nurse, laundering for the nurse, board, teaching expense, servants' hire, and everything of that kind. I would like to know if all those things are figured in.

DR. PACKARD: Everything is figured in, the rent, the light, the water, the proportion of office expense that has to go to the training-school, the proportion of printing that goes to the upkeep of the training-school, everything that is an expense in every part of the institution, a proportionate charge of that is charged to the training-school on every detail, nothing is left.

(2) Where a hospital has but one ambulance, which should it be, horse, electric or gasoline?

Dr. MORRITT: In the town I am now in the undertakers run the ambulance, and have a very unique method of doing it, too. All three of the undertakers have ambulances. If they are going to one hospital, they have a very neat little brass sign that they hang out, with the name of that hospital on; if they are going to the other hospital they have a very neat sign with the name of that hospital, so that the people in the town really think that each hospital has its own ambulance. The ordinary run costs \$3.

THE CHAIRMAN: In Minneapolis we have now what we call an Emergency Ambulance Association. It is a private corporation owning and operating a number of gasoline power ambulances for all the hospitals excepting the municipal hospital. The City hospital still operates its own, and the police department operates ambulance for accident cases. The other hospitals all have contracted with this Ambulance Association for ambulance service. They now operate three cars and will soon have a fourth car in service. They are giving us very good service. Our minimum rate over there is \$3.50, but they will cover a considerable territory at that rate. It includes all the stations in the city and a large portion of the resident section. The maximum charge within the city limits is \$5 for a trip, and that requires them sometimes to drive as much as seven and one-half miles going and seven and one-half miles coming. I think that is going to prove very satisfactory.

We had what we thought at one time was the acme of perfection in a horse-drawn vehicle. It was an expensive wagon to start with and nicely finished, but when these gasoline ambulances came out, fitted with electric fans in hot weather, and hot water radiators in cold weather, and all such conveniences, we felt we couldn't compete. And sometimes people took offence when we sent our horse-drawn ambulance. The doctor would simply call for an ambulance, we sent our ambulance, these people were people of some pretensions, and they refused to ride in our ambulance and would send it back. We couldn't make them any charge. They would call up the Automobile Ambulance Association and get their car. So we aban-

done that. Besides, there was a great economic factor in this for the hospital. You don't have to provide any linen, any blankets, any machines. You don't have to send out any orderly or interne; the case is brought to your doors by the servants of this Association who are trained in Red Cross work, more or less. They are the high type of orderlies who go into this work and are paid \$75 a month, getting their room, their uniforms and one thing or another. It is a pretty good thing. It is better than being a hospital orderly, anyway. So that has solved the ambulance problem very satisfactorily over in our town; and I believe it is doing the same in several other cities.

DR. PRATT, Syracuse: I think this question is a very interesting appearing one, but there is a great deal more to it than perhaps would seem at first, more than we can perhaps go into at one time. The question to start with will be between a horse ambulance and a motor ambulance without regard to which kind. If a small hospital having only a few calls was to keep an ambulance, they would find the horse ambulance much more expensive than a motor ambulance, which is no cost at all when not in use; unless the hospital has some other work they could use the horses for, as in trucking or farm work, or something of that sort. The horse ambulance, if it is a busy service, cannot take care of nearly as many calls as the motor ambulance can. It is a nuisance on the hospital grounds on account of the odors and flies that are attracted around the hospital. The motor ambulance does away with all those difficulties.

When you have decided to use a motor ambulance, the question of a gasoline car or an electric car would then come up. An electric car is entirely satisfactory under certain conditions, but they are very few. If your streets are level and your runs comparatively short, your snow fall, as a rule, comparatively light, your electric car will be entirely satisfactory and much cheaper to run. But such conditions are found in very few places. In New York City it is found to be very suitable. In Boston I understand—just why, I don't know. I have never heard the reason—they have found the electric ambulance very unsatisfactory. The gasoline car for busy service will take care of much more work than any other car,

and is no more expensive practically, I think, than a horse-drawn ambulance, certainly. It might be more so than an electric ambulance. In the electric ambulance you must have a charging station either at your own plant or near by. If you do not have it at your plant, you are very frequently called out suddenly and get about half way on your call and find your car has run down. It is difficult to have it at your own plant unless you make your own electricity. So that all these conditions would have to be considered with the individual hospital in deciding what kind of an ambulance would be most satisfactory to that particular hospital.

DR. WATERSON: After careful investigation I have found that in cities of 10,000 to 30,000 where there was no ambulance connected with the city, the gasoline patrol wagon and ambulance combined, which is being gotten out now by some of the automobile firms, has been quite economical for those cities.

(3). Which is the best flooring material for wards, for corridors, for administration buildings and for operating rooms?

MR. STEVENS: I have tried nearly everything that has been made. Sometimes I recommend one thing, sometimes another. It depends in which year I am asked. Just now, what I am using in some of my hospitals is this: For the corridors, a cork tile. This cork tile will hardly ever wear out. It is most resilient and I think for a corridor floor it is perhaps the best thing that we have to-day. It is surely non-slipping and has every advantage of a corridor floor. For wards and private rooms I think linoleum seems to be the nearest approach to a perfect floor if it is properly laid. Get experts who will lay that floor and lay it smoothly and have it thoroughly cemented to the foundation.

In southern Germany the best architects there were cementing linoleum directly to the concrete base.

I don't believe in using linoleum on rooms where there is a great deal of moisture, like sink rooms, toilet rooms, diet kitchens and kitchens themselves. There, I should use some simple material, depending on the amount of the appropriation. If you have plenty of money, I should use tile; if you haven't I should use terazzo.

MISS McCALMONT, New York: Cork tiling is very expensive, and smaller hospitals, it seems to me, would have to content themselves either with a dreadnought linoleum or similar material, or possibly a granolithic floor with a linoleum strip well sunk into the granite.

I have always found building committees are very averse to linoleum in private rooms. They do not like the appearance and patients do not like the appearance of linoleum, and are almost insistent upon hardwood floors, which we know are a great nuisance to maintain. But in private rooms that seems to be almost a concession that we have to make. In wards it seems to me that there is nothing much more satisfactory than linoleum unless, of course, the hospital has the money to put in cork. Cork is particularly nice in children's wards because of the warmth of it, general softness, and the beauty of the coloring, etc.

In operating rooms, I was particularly impressed with a hospital in San Francisco that had two operating rooms, one done in white tile and one in a soft green. The green was put in as an experiment and it has become so popular that they find great difficulty in getting their servants to operate in the room with the white tile. There is a vast difference on the eyes. This room is tiled, and wainscoted about six feet up the walls. It has been a tremendous improvement on the light.

DR. POTTS: Our hospital has been in operation two years and we have tiled floors in corridors, rooms, everywhere except in the kitchen and dining-room, where we have the granolithic floors, and we have found it very satisfactory. It is a Spanish tile with different patterns and looks very much like a rug. First, we had little rugs laid in the rooms, but we found that those were not satisfactory and we took them out. We use only the bare tile. The only difficulty we have found is, it is a little noisy. But we have rubber strips down the corridors. We have no rugs now at all in the rooms except a very few. In our specially nice rooms we try to keep some rugs. I think it is more sanitary than anything else we can get, and we are becoming more and more pleased with it. We were just like all the rest in building our hospital. I visited New York, Philadelphia and Chicago, and consulted hospital superinten-

dents, and they were all up in the air about floors. We finally decided on tile and are very well pleased with it. We were fortunate in making a deal with a company that was laying the Spanish tile and trying to get in with the city, and we got it at a very reasonable price.

MISS RITCHIE: Mr. Chairman, we have a hospital a little less than five years old. All the floors with the exception of the operating room proper and the stairs are in a dull red concrete. I don't know the character of the concrete, but I know that it contains a portion of asbestos. It is put in without angles and is very satisfactory. If it becomes discolored, it cleans easily with steel shavings and is finished again with oil. It is easy to clean and quite sanitary. We use rugs, and having a very good vacuum cleaner, we have no trouble in keeping our rugs and the floors clean.

MISS BURNS, Kansas City: Mr. Chairman, at the German Hospital in Kansas City, which has been in use for two years, we have what we call petropulp. I don't know what it is. I suppose Mr. Stevens may have told you before I came in.

MR. STEVENS: I have never heard of it.

MISS BURNS: We like it very much. It is not as noisy, of course, as a hardwood floor or as the terazzo. We have it in the private rooms and in the corridors. We use rugs in the private rooms. It turns up at the base board. I don't know what it is, because it was there when I went there.

DR. HOWARD: Mr. Chairman, I would like to ask Miss Burns about the stain on that. We have some ourselves.

MISS BURNS: It was somewhat stained from being used before it was sufficiently dry, so I am told. We find that clear water is the best. We discovered this from an overflow from a bathtub that clear water was better for cleaning it than anything else. There is just one place that we have had any trouble with it, that was in the nurses' dining-room, where some steam pipes leaked and caused a little upheaval in the floor.

DR. McRAE: I would like to ask Mr. Stevens if he has had any experience with plastic linoleum. I understand some of the large hospitals have used that.

MR. STEVENS: I would say, Mr. Chairman, that this plastic linoleum is just another name for magnusite floors, as I understand; the basis being magnusite. They use various ingredients for the mixture, sand, sawdust, asbestos, cork and various things. I think cork is used in what is called plastic linoleum, as I understand it. I saw some used in the Bellevue Hospital in New York. I was told that it was some of the same material, that is, a magnusite floor. My objection to a magnusite floor is this, that the least bit of even diluted acid will eat that surface right off; that warm water dripping on that floor constantly will eat a hole in it. For instance, I used it in several kitchens and the various dripping in the kitchen would gradually wear that floor away. For that reason I don't like it as well for that sort of a place. It is good, as I say. I like it best for a place where it isn't subject to very much wear, but I shouldn't prefer it for toilets, sink-rooms and that sort of thing.

DR. PRATT: I was just wondering if a number of the members here might not have been at the Detroit convention two years ago and seen the new hospital which was opened there at that time in which they had the terazzo floors in the corridors extending in the private rooms. I was speaking to Dr. Babcock a day or two ago to find out how that turned out, and if I understood him right he said they had found them very satisfactory indeed, and wouldn't think of going back to wooden floors.

THE CHAIRMAN: That strengthens me somewhat in my convictions. We are building a new building in Minneapolis now, and the contract has been let for terazzo floors in all the rooms.

(4) Should nurses receive their preliminary training in technical schools?

MISS AIKENS: Much depends upon the proximity of the technical school to the hospital and the hospital conditions in general. If by preliminary training we mean that a nurse spends her entire probation period in a school apart from the hospital, I shouldn't think it was a very wise proceeding. The preliminary training is not alone to cram the nurse with a certain amount of theories, but it is to gradually accustom her

to the hospital atmosphere, the hospital surroundings and the hospital people, and to give her a little insight into the life that she is expecting to lead for the next two or three years. I can see some advantages in having some class work in a technical school. I remember a few years ago having quite an argument with one of the prominent members of this Association who was very enthusiastic about central technical schools where a nurse should spend the first year and where she could be surrounded by laboratories and all the other facilities for giving the most expert training during this first year. And I asked him what his plans were for the second year. Why, he said, he would send them then to the smaller hospitals throughout the State. He would have the central training school in a large city. The technical school would be where all the students would take their first year work. I asked him if he thought that a nurse who had spent her first year work possibly in a central school connected with a very large, elaborate hospital and surrounded by all these modern improvements would be perfectly satisfied to go out into a little railroad town, perhaps, and settle down for the rest of her training. He wasn't quite sure that she would.

I believe very fully that we ought to begin to instil the principles of hospital loyalty into our pupils from the day they enter. I should be very careful about the teacher that taught my probationers. I should want to know just what she was teaching them in the technical school and whether the things that she was teaching them were contrary to the things that the nurse might expect to meet when she came to the hospital.

As I said before, I think that if this hospital is so located that certain classes can be held in technical schools, that it is a very excellent idea to let your pupil nurses go to the technical school for those special classes, like classes in chemistry, or special classes in dietetics where they have expert teachers and all the facilities for giving a thorough training in dietetics or some of those other subjects. I should think it was a very excellent plan to let them avail themselves of those certain classes; but I do think there is a great deal to be gained in having the pupil really under the administration of the hospital, and control of the hospital and gradually accustoming

herself to the hospital from the time she begins her career as a probationer.

MISS POWELL, Minneapolis: I should like to say I have for the last four years had the superintendence of nurses having four months in a technical school, but I have my nurses during that four months. I have a class with them every day myself, five hours a week. In the University they would get from expert teachers their anatomy, physiology, materia medica, bacteriology, chemistry, and in the academy a course in lettering. We have let them have some English, but we find it is not altogether necessary as they are high school graduates. I take up with them the history of nursing, nursing technique, nursing ethics, hospital economy, and try to gradually prepare them for what they are going to work in, tie them up to the work of the hospital. My hospital dietitian also has them for an hour a week in preparatory dietetic work which is carried on during the two months of probation which they get when they come into the hospital. When they get into the hospital there are six hours of ward duty and two hours of class work every day except Sunday. I have those classes made up for practical demonstrations and practical dietetics. They do nothing for patients until they have it demonstrated in the class room. I do feel that the technical work which can be taken up relieves the hospital of a tremendous burden of teaching. The amount of money that is accorded to the training-school for nurses in the University of Minnesota, accounted as they count six hours and cost of work in the University for other departments is rated at \$3.055 a year, the actual time that is taken up during the year. That includes, of course, the undergraduate work which is carried on by the University faculty after they come into the medical hospital; the class work being carried on by nurses. So that we do not give up our nurses entirely to the teachers in the technical school, but I have very close watch on them by having them myself. I feel they come in gradually prepared. They have a foundation to work on. They are getting that work when they are entirely free from any other work. They are rested, they are fresh, they are putting their work into study.

That work costs our students \$25 at the University, and better than \$125 which they pay for boarding themselves during that four months. We count the course is costing them \$150 for the time. After they come in we pay them nothing. We furnish their uniforms, giving them a 56-hour week, and their class work following that. Of course some of you know how much trouble I have had in getting nurses. Up to this time they are five years old. We have spent over \$11,000 in graduate nurses for the wards, but this fall my class is larger than I have need for, and I am going to need twenty-one nurses within the next year. Together with nurses who come to us for a year, I shall be able to pick and choose among my class this fall. That has not been the case heretofore. This is the first class since February of this year that we have been able to run the hospital with our pupil nurses. I feel the technical schools of our Universities give good training and it is not a disadvantage. I feel that the hospital by employing trained teachers can arrange that preliminary work in their own hospitals to take care of the nurses if they wish to do it that way. We find it more satisfactory at the University school to have it the way we have.

THE CHAIRMAN: Miss Powell has told us something about the training school at the University Hospital at Minneapolis which is unique in this respect, that it is a department of the University, so that when a pupil nurse graduates from the University Hospital Training School, she gets a University diploma.

MISS POWELL: A University degree. There are University requirements before entrance.

THE CHAIRMAN: The requirements are the same as in the academy department of the University?

MISS POWELL: Yes.

THE CHAIRMAN: I don't know just the exact interpretation of this question, "Should nurses receive their preliminary training in technical schools?" I presume it refers to their training after they have been accepted, of course, as probationers or pupils of a training school. Do I understand it to mean they should be sent to some technical school or a separate curriculum should be devised for them in the hospital of a technical nature different from the usual curriculum? Or, does

it mean it is advisable to select such applicants for our training school, or advise those who wish to apply to our training schools, to receive some sort of technical education? I think we need a little further enlightenment on the exact interpretation of this question. I want to say for my part, when I look at this question, the kind of applicant I want in our training school is the girl with a general well rounded education. I don't want one who knows more about electricity than another girl, or more about steam, or more about cooking or sewing, and less about literature, history or grammar. I want the general, well rounded, educated person.

Question 5. Should the tray for private patients be made up in a central serving room, or in serving rooms on the floors? Should nurses or pantry maids prepare the trays?

MISS ANDERSON: In answer to the first part of that question, I can give you my experience rather than my opinion. Ours is a small hospital, only fifty beds, and the building is not constructed for it, so it is impossible for us to do otherwise than to serve from one place. There are advantages, I think, in each system. The food all comes up from the kitchen, and the steam table is presided over by the housekeeper. We help the nurses as much as possible by having the menu posted, the different kinds of diet are stated and the patients get different diets; house diet, and extra house diet, which means something a little extra added for the private room patients. The nurses go to the steam table, tell the housekeeper what their patient likes, how much she wants, etc. That works out pretty well.

The latter part of the question I have a very decided opinion about. I think the nurses should always serve their patients' food. It isn't possible for each nurse to go to this diet kitchen. If it were, I should like that better. But we designate certain nurses to serve the trays, and we always send our senior nurses, nurses of best judgment and best experience to the diet kitchen to serve the trays. After a surgical operation there is no other one subject that demands so much attention as the diet. The patients if they are getting along pretty well and are fed pretty well, are happy and their troubles are less. So if we send nurses to the diet kitchen to get out those trays, who will get out good trays and attractive trays. We lay great stress on

that. I don't think we would be liable to get the trays as well served if they were gotten out by a maid. But I may be old-fashioned about that. I like to have the nurses get out their own medicines and do their own charting and do everything possible for their patients. I think if I were building a new hospital I should have separate diet kitchens. But, of course, that depends a good deal on the size of the hospital, too.

MISS BURNS: Mr. Chairman, we have the diet kitchens on each floor and we put the probationers in—not during their first month—it is in about the third month, to set up the trays. We have in our main diet kitchen two nurses who help do the cooking for the private patients' special diets. These two nurses and the dietitian preside over getting out the trays at meal time. Each patient's tray is tagged, the name of the patient, the number of the room and the diet. We think that works out very satisfactorily. It is the older nurses who are getting the training in the diet kitchen in the cooking, and it is the younger nurses who set up the trays. The older nurses preside over getting the food on to the trays.

MISS DUNCAN: I am very much interested in this question because we are building a new wing in which we are having the central diet kitchen, from which all the food is to be served. It is claimed, and I have found it so in the hospital as it is at present, where we employ several special nurses, that there is a good deal of trouble in serving the meals from the separate diet kitchens, as each special nurse wants to have special cuts for her patient; whereas if they are served from a central diet kitchen, served on a tray with a hot water plate directly to the patient's room, the dietitian being in charge of those trays can be made responsible both for the food and the appearance of the trays. And the nurse under her gets the experience of seeing the trays perfectly set and the food properly handled, and there is not the same discussion about the food that is served, the cuts and so on, from the separate diet kitchens.

(To be continued.)

News Items

"The Modern Hospital" Purchases "The International Hospital Record"

The International Hospital Record which has been published for eighteen years by the Sutton Publishing Company, Detroit, has been purchased by The Modern Hospital Publishing Company of St. Louis and Chicago, and was merged with *The Modern Hospital*, beginning with the March issue.

The Modern Hospital is a monthly magazine devoted to the building, equipment, and management of hospitals, sanatoriums, and kindred institutions. Recently it has opened several new departments relating to public health problems, such as "Philanthropy and the Public Health," "Prevention of Tuberculosis," "Prevention of Blindness," "Dispensary and Out-patient Work," and "Life Extension." The editorial offices of *The Modern Hospital* are located in Chicago and the publication offices in St. Louis.

The Ambulance Construction Commission

This is the first great war in which field motor-ambulances have been extensively used. It was inevitable that many defects should be found in existing types, and in various quarters experts began to ask whether something could not be done to standardize the patterns and to improve the type. At the instance of Mr. Henry S. Wellcome, the founder of the Wellcome Bureau of Scientific Research, a Commission has been formed, and the names of members show at once that the matter is regarded as of first importance by those most intimately connected with the welfare of the wounded soldier.

Sir Frederick Treves, whose long experience and distinguished service specially fit him for the task, has consented to be the chairman. The Admiralty is represented by the Director-General of the Medical Department, R.N., while the Quar-

termaster-General to the forces and the Acting Director-General, Army Medical Service, represent the War Office. The British Red Cross Society is, of course, represented by Sir Frederick Treves, and the St. John Ambulance Association by Sir Claude Macdonald and Sir John Furley. The remaining members are all experts. This Commission will first and foremost act as a judging committee for the award of prizes of the value of £2,000, provided by the Wellcome Bureau of Scientific Research. These prizes are offered for the best designs of an ambulance—body which shall fit a standard pattern motor-chassis for field motor-ambulances. The last day for the receipt of competing designs is June 30, 1915. It is hoped that the competition will bring in a number of ingenious designs, from which the ideal field ambulance-body will be evolved.

It may be asked why the competition is restricted to designs for a body and not for the complete ambulance, including a chassis. The reason is that a chassis takes much longer to build than a body, and that, when war breaks out, it is impossible to get at short notice anything like a sufficient number of any one type of chassis. On the other hand, a standardized body to fit any chassis of approved dimensions can be constructed in numbers at comparatively short notice. And a perfected body is badly wanted to ensure complete comfort for the wounded.

It is hoped that the information obtained by the competition, and in other ways, will be published in some permanent form, available for future reference. Probably in addition to one design of special excellence, there will be submitted various ingenious suggestions which may be incorporated in the pattern design approved by the Commission. For these, a portion of the prize money has been set apart. The first prize is of one thousand pounds, the second of five hundred, and the third of three hundred pounds. All details of conditions may be obtained from the Secretary, the Ambulance Construction Commission, 10 Henrietta Street, Cavendish Square, London·W. The competition is open to citizens of all nations.

Book Reviews

Report of the Committee on Inquiry into the Departments of Health, Charities, and Bellevue and Allied Hospitals in the City of New York, appointed by the Board of Estimate and Apportionment. George McAneny, Chairman, President of the Borough of Manhattan; and George Cromwell, President of the Borough of Richmond. Investigation and report under the direction of Henry C. Wright. City of New York: 1913.

From time to time during the past few years a number of the various reports comprising this large volume have been issued, and eagerly read by hospital workers. This work is a fine contribution to hospital literature and will be perused with interest and profit by trustees, superintendents and other hospital officials.

In the collating of this voluminous report the services of eminent sanitarian, engineer, architect, accountant, housing expert instructor and investigators were secured and a fine study made of Bellevue and the allied hospitals. The thorough inspection of conditions revealed the remedies which are being applied.

Among the various recommendations made, one of the most important is that of establishing Health Centres.

Such a centre would bring the hospitals and health departments into co-operation, and leave no uncovered territory between the functions performed by each; would enable the hospitals to secure a knowledge of home conditions; would retain at home many patients that otherwise would go to the hospitals. It would give a more intelligent care to convalescing patients, would advise patients when to go to an outpatient department; would minimize the spread of contagious diseases. The instruction of mothers would be a material aid in maintaining health conditions in the family. Centralizing information and records at one place would make them accessible to all agents in the district, thus rendering it possible to treat a large proportion of

sickness at its inception. Thus duplication of effort would be reduced, the hospitals would be relieved, and the amount and duration of sickness diminished.

The book is being sold at a nominal sum.

The Psychology of Management. The function of the mind in determining, teaching and installing methods of least waste, by L. M. GILBRETH, M.L. New York: Sturgis and Walton. 1914. Price \$2.00.

Hospital superintendents who have in charge the larger hospitals of America will do well to read this volume. They may find the first chapter rather dry; but the remaining chapters are fascinating in interest. The various topics in their relation to what Mr. Gilbreth styles the three types of management: traditional, management, transitory management and scientific management. The last named type is the ultimate form of management because it is psychologically right. Scientific management is a science. It is built on the basic principle of recognition of the individual. It fosters individuality by functionalizing work. It includes measurement of the workers' capacity, standardization, accurate records, unification and self-perpetuation of management, is a contribution to education. Its incentives stimulate and benefit the worker—ultimately as well as immediately; it is applicable to all fields of activity—mental and physical; it can be applied to self-management; teaches men to co-operate with the management, as well as to manage.

It increases output and wages and lowers cost; eliminates waste; turns unskilled labor into skilled; provides a system of self-perpetuating welfare; reduces the cost of living; bridges the gap between the college trained and the apprenticeship trained worker, and forces capital and labor to co-operate and to promote industrial peace.

The presentation, elucidation and proof of the above premises make very profitable reading. No book can be of greater value to the hospital manager.

Notes on Dental Anatomy and Dental Histology. By T. W. WIDOWSON, Licentiate of Dental Surgery of the Royal College of Dental Surgeons of England; late House Surgeon of the Liverpool Dental Hospital. Third edition enlarged and revised. More than 100 illustrations. 7/6 net. Published by John Ball, Sons and Danielsson, Ltd., Medical Publishers, Oxford House, London W.

To the dental student who is in search of condensed information on this subject, or the busy practitioner who wishes to re-burnish his information on Dental Anatomy, this work is invaluable. The author has succeeded in crowding a great deal of necessary information into small space. In fact the book is one that every practitioner ought to keep very near him for reference. It will help him do more intelligent work on the living organs of mastication. The illustrations are numerous and easily interpreted and throughout the book are blank pages where the reader can jot down the impressions he wishes to retain. The author and publishers are to be congratulated on the production of such a work and we gladly recommend its perusal to the whole Dental Profession.

Obstetrical Nursing. A manual for Nurses and Students and practitioners of medicine. By CHARLES SUMNER BACON, Ph.B., M.D., Chicago. Lea and Febiger, Publishers, Philadelphia and New York.

This is a new work, taking up all the relationships that exist in an obstetrical case, especially in a private house, in a very thorough and emphatic manner. Much stress is laid upon the qualities essential to a good nurse, since this work differs vastly from the care of a pneumonia case or an appendectomy.

The business side of the engagement between patient and nurse is handled in a frank, fair way, and all nurses can profit by it.

The anatomy of the parts is clearly described, also the physiological changes that occur, so that any pupil can obtain

a clear idea of this wonderful process of growth, and nothing is said, or omitted, to make the lessons obscure.

Every possible abnormal condition which can occur with the mother or child, is carefully dealt with, for example the care of the breasts. In one or two instances the illustrations might be improved; for instance, in breast massage, the nurse stands to better advantage, and must be on the side of the affected breast, permitting the patient to lie also on that side, with the breast in a pendulous position over the edge of the bed.

One might also wish that the difficult question of incubators were dealt with more fully.

As a whole, the work is well arranged and complete.

DOCTORS READY TO SERVE

THE following is a list of thirty-seven medical men, who have recently qualified for military field medical men who are willing to serve with any contingent, and who are arranged according to seniority in qualification for military service: J. W. Humphrey, F. M. Walker, C. C. Birchard, F. S. Park, J. B. McMurrich, R. H. Thomas, G. G. Clegg (at Hurst Concentration Camp), L. C. Palmer, W. T. Little, J. D. Hayes, J. G. Fitzgerald, H. L. Reagin, O. J. Day, E. A. P. Hardy, A. Pain, A. C. Rowsell, R. Y. Kenny, H. G. Willson, F. E. Watts, G. N. Urie, V. H. McWilliams, J. V. Brown, N. C. Sharpe, H. E. Ferguson, A. A. Fletcher, M. G. Thomson, G. F. Boyer, R. W. MacIntyre, F. J. Livingstone, E. Boyd, W. E. Struthers, A. H. Caulfield, J. W. S. McCullough, W. L. Whittemore, R. H. Paterson, G. D. Porter, F. A. Dallyn, H. C. Parsons.

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Editorials

HOSPITAL FLAGS

It is satisfactory to know that the Germans admit having made a mistake in firing upon the hospital transport *Asturias* on February 1st. The *London*

Times recently published a statement from the German embassy as follows:

The Government is sorry to admit that the *Asturias* was attacked on February 1, at 5 p.m. Looming up in the twilight, carrying the lights prescribed for ordinary steamers, the *Asturias* was taken for a transport carrying troops. The distinctive marks showing the character of the ship not being illuminated, they were only recognized after a shot had been fired. Fortunately the torpedo failed to explode, and the moment the ship was recognized as a hospital ship every attempt at further attack was immediately given up.

The *Hospital*, in commenting on the above, notes a communication recently sent out by the Home Secretary concerning the correct flags to be used by the civil hospitals in event of a bombardment. It states that civil hospitals, as well as churches and museums, should be marked by a black and white sign—a stiff rectangular panel, divided diagonally into two pointed triangular portions, the upper part being black and the lower white. The Red Cross flag, it is pointed out, may be used only by hospitals which are exclusively under naval or military control, or in cases where special authority has been granted by the Army Council.

“It would be interesting to know,” says the *Hospital*, “to what extent, if any, the building displaying it would be protected from bombardment or attack. In view of the facts already known about bombardments during the early months of the war, we fear that there is not much chance that any sign will serve much protective purpose, or that care

would be taken to avoid shelling the building on which it is used. The aspect of the matter in international law is as follows:

“Under Article 27 of the annex to the Hague Convention of 1907 it is provided that such buildings as those enumerated above are to be spared as much as possible during bombardments, provided that they are not at the time being used for military purposes. Such buildings, it is also stated, should be clearly indicated by distinctive and visible signs which have been notified beforehand to the enemy. The panel above mentioned is then described, and it is pointed out that the Red Cross may be used only by hospitals exclusively under military or naval control.”

It is to be hoped that English institutions will have no experience of the practical value or otherwise of the black and white panel.

HOSPITAL WAR WORK

PREVENTIVE medicine is showing its hand in the practical absence thus far of epidemics among the allied armies. The military hospitals are dealing very severely with the insect conveyors of typhus fever by insistent sterilization and cleanliness. The bath arrangements for the men who come from their turn of trench service are one of the most important and insistent of the field hospital adjuncts; and the “bath corps” of muddy, weary soldiers, are put through a cleansing that as one soldier writes, “scalds

and cleanses every bit of our skins, as well as the rags we wear." The present sorry conditions in Serbia at least serve to redouble the efforts of the hospital corps of the Allies in the prevention of this dread disease, which is purely one of dirt.

Protective inoculation against typhoid is keeping this disease down to a minimum. Hospital, or dry gangrene, from which so many of the trench soldiers have suffered during the past winter months, and which is caused by failure of blood circulation in the feet, has been largely abated by soaking the boots in hot oil, greasing the feet and unlacing the boots at intervals while in the trenches.

Only two infections, gas gangrene and tetanus, are still giving serious trouble. These diseases, it has been proved, are derived from the soil that is being fought over. The hospitals are combating tetanus by injections of antitetanus serum. Protective doses are being given to the wounded among the Allies as soon as the hospital forces can administer it; and where the disease develops, the serum is used in quantities. The total number of cases of tetanus is not large, but the death rate is high, and the hospital authorities are not yet ready to pronounce on the efficacy of the remedy.

No preventive remedy has yet been found for gas gangrene, which is quite distinct from the hospital type. The former is due to the presence of spore-bearing organisms found in the soil. The infection occurs chiefly in wounds which contain soil or fragments of muddy clothing forced into them by the

guns. So far the hospitals use various antiseptic treatment and peroxide, but neither of these is highly effective.

A feature of the present war is the large and very prominent share in it born by the medical and hospital authorities. Never before has there been so complete a realization of the part these bear in the conflict. The appreciation of hospital values is shown by the importance given to this branch of the struggle.

To prevent decimation of the army by disease and to restore the wounded, the services of men highest in medical ranking are enlisted. The laboratory and the sanitary expert are on the alert. Men of the ranking of Sir Almroth Wright, Harvey Cushing, Sir William Osler and many more are using their knowledge to the utmost, while efficient hospital workers, both men and women, are carrying out their orders.

Much that is of transcendent value to the hospital world will accrue from experiences gained in this conflict, not alone in the departments of surgery and medicine, but in swift and effective hospital expedients called forth by terrible emergencies. Whatever else of good may arise from this great conflict, the hospital world will at least be sorrowfully enriched.

THE ADMINISTRATOR ABROAD

NOTHING helps a hospital administrator more than making periodical visits of inspection to other hospitals either at home or abroad; and it is a wise Board that makes it possible for its superintendent and department heads to do this.

Although something may be learned from the smallest hospital, the heads of large institutions naturally elect to visit hospitals of similar size; since, in such instance, the same problems must be met and solved.

In making such visits it is well to know beforehand not only what one wants to see, but also just where it may be seen. Each of the large hospitals excels in some special department of management, has solved some troublesome problem, and a strict schedule of times and institutions to be visited, with a note of what the visiting administrator desires most to see, means a marked saving of time to both sides.

In visiting European and British hospitals letters of introduction greatly facilitate matters—as these secure personal attention which would otherwise be lacking. Otherwise in Continental hospitals the Pfoertner at the lodge or gate house directs you to the main office, where, after handing in your card with an expression of your desire to make a general inspection of the institution, you are given a guide who will take you over a regular route. After the round is finished this officer usually offers you a hand-

book of the institution which you purchase, and this constitutes the "tip"—accepted without loss of dignity to the officer.

But if you carry letters of introduction to some special medical department head, that official takes much pains to show you in detail the interesting features of his own wards and laboratories. He will also introduce you to the heads of other services, if you so desire, who will accord an equally cordial reception.

Of course, it facilitates matters considerably if the visitor speaks the language of the country however haltingly. It means a considerable increase in the interest shown and the warmth of his reception.

In Great Britain, where there is no language bar, the visiting hospital man is able to place himself at once in touch with the hospital authorities. But, here also, a letter of introduction means much, since the English officials stand more on the order of their office than does the American, unless the former has previously experienced the kindly hospitality of American institutions.

The difficulty confronts the American visitor whether to ask for the medical director, the matron, or the Secretary—since these three officials are largely independent and on comparatively equal standing in many English hospitals. The secretary is usually the head, though the other two do not rank much below him. It is best to decide in advance just which department you would like to inspect, leaving the others for any overtime.

A suggestion might be made here that in visiting the English hospitals, some attention should be paid to niceties of dress, since the silk hat and morning coat are still correct form for the profession in England.

In the United States and Canada, as is well known, these formalities are not observed. The visitor has only to enter an institution, announce his standing and wishes, and he is welcomed and taken through every department that he wishes to inspect. It is wise, however, to arrange a date and hour in advance if he wishes to make a careful study of the entire institution, also to formulate in his own mind a definite idea of what he wishes to inspect or learn. If it is possible to read up the history of the hospital previous to the visit, its activities and medical notabilities—this also aids in appreciating the hospital output and atmosphere.

It would possibly be more instructive to the visiting expert if he were shown mistakes in construction, equipment or even management, in addition to the successes—things to avoid, as well as things to emulate. But it is naturally difficult to discover these except through the trained eye of the visiting administrator.

While most large hospitals have a guide for the ordinary lay visitor, not a few administrators make a point of personally accompanying visiting superintendents through the institution, a courtesy which

should be promptly acknowledged at the close of the tour or by letter after leaving.

Always take a note book on such visits; otherwise many valuable details observed at the moment are forgotten. Many visiting experts have trained perceptive faculties and memories which enable them to see and remember much. But the note book is an invaluable reminder even for these.

Original Contributions

A VISIT TO THE MAYO CLINIC

BY JOHN N. E. BROWN, M.D.,

Medical Superintendent, Henry Ford Hospital, Detroit, Mich.

THE last meeting of the American Hospital Association was held in St. Paul, within a three hours' run of Rochester, Minnesota. The writer, who was at the meeting, was thus afforded a convenient opportunity of visiting the celebrated Mayo Clinic.

The evening before my visit, I met Dr. "Charlie"—as he is known by his intimate friends—at the St. Paul Hotel, the meeting place of the association, where he was to read a paper on the "Relation of the Hospital to Medical Education." He had motored over with his family from Rochester, a hundred miles away. His home is on a farm a few miles out of town, and is modelled after the plan of the Sans Souci Palace and gardens, of Frederick the Great at Potsdam.

Dr. Charles is a man upward of fifty, rather stout of build, quiet in demeanor, possessed of a sympathetic voice—low-pitched—and kindly brown eyes; a man of pleasant address. After a few words, he informed me I would be welcome at the clinic on the following day, when he would be on the lookout for me.

After a trip over the beautiful driveways which connect the twin cities on the banks of the Mississippi, and a visit to the Minnehaha Falls, we left St. Paul and travelled southward by train through magnificent stretches of undulating country. Wonderful banks of cloud islands, edges gilded by the setting sun, seemed hundreds of miles distant. Here and there on the ample farms were beautiful woodlands sheltering pleasant and comfortable homes. The air was dry, cool and stimulating.

I mention these facts regarding the environment of Rochester, because I believe these broad vistas, fertile farms, quiet, prosperous homes, glorious skies and bracing air have had some influence in the production of the men who have made the "Clinic in the Cornfields" the most famous surgical centre in the world.

Another potent influence which doubtless had much to do with the formation of the characters of these surgeons was that of heredity. The father was a doctor in Rochester for many years—one of the Minnesota pioneers. He must have been a man possessed of character and vision, desiring that his sons should receive a grade of medical training that had been denied him.

Arriving at our hotel, I observed that the guests were doctors with their wives, friends and relatives of patients, prospective patients, and convalescent patients.

One of the smaller dining-rooms of the hotel is set aside for the use of the bachelor members of the clinical staff. The men are from the leading medical colleges in America. They have been specially trained in the particular branches to which they have devoted themselves, and are spending three or four years here to increase their efficiency, and in so doing do much to increase the efficiency of the clinic. "The young man for the new problem" is one of the epigrams of Dr. William Mayo, the executive head of the clinic.

Among the assistants I met during my brief visit to the clinic were men trained at the Johns Hopkins, the University of Pennsylvania, the Universities of Toronto and McGill, in Canada, the North-western University, and other noted medical teaching centres.

The work of the medical corps of some seventy men is carried on mainly in two places. The St. Mary's Hospital, managed by the Catholic Sisters, is where the major operations are performed. It is ideally located on the outskirts of the town. Miles of smiling fields slope and dip until they meet the horizon in the distance. The other work-place is the clinic or diagnosis building. It is of the block type of construction.

Waiting patients, convalescent patients, requiring after-observation and after-treatment, fill several hotel-sanitariums and scores of boarding-houses of various degrees of quality throughout the town. They include people from all parts of the continent. One patient was from Candle, Alaska, and another was from Porto Rico, West Indies.

The visiting doctors were from districts as widely scattered—from New England, from Los Angeles, three or four representatives from Canada, east and west, and from Texas.

The patient may be required, like the sick at the pool of Bethesda, to wait his turn for operation, which, unless his case is acute, may be deferred for several days, owing to the busyness of the operator to whom he is assigned, and to a possible ante-operation preparatory regime.

It is manifestly impossible that all the patients should see one of the famous brothers; but where special request is made to see one of them an effort is made to grant the request.

Some 10,000 operations per year are performed here—2,000 operations for goitre alone. These figures give an idea of the magnitude of the work done.

But it is not the quantity of the work done alone that impresses one. The quality is also noteworthy.

The method of the examination of a patient is somewhat as follows:—

The patient is brought to the clinic by his local doctor or by a relative. He is suffering, let us suppose, from some more or less obscure disease of the stomach, which may have been diagnosed by the home physician, and operative relief is sought; or, the trouble may be obscure and a diagnosis is wanted, as well as relief.

A general inquiry is made into the patient's condition, physical and financial (he is charged according to his ability to pay), is referred to one department after another, each in charge of a specialist—referred as long as any new light is needed to clear up the diagnosis.

Thus is carried out the famous Oslerian dictum—"the first step in the treatment of any case is to make a diagnosis."

The patient with the stomach "trouble" has the contents of this organ analyzed at the laboratory by men thoroughly versed in physiological chemistry.

While at the clinic I learned from visiting medical men and from a member of the staff that the clinic had come in for a considerable degree of adverse criticism. It is stated that there is a degree of jealousy in certain regions against the clinic. The surgeons in a nearby city find it a strong competitor; and I am told, some of them, in order to get and hold patients from that section of the country split fees with the local physicians who bring them cases.

I was interested in hearing that the local physicians and surgeons in Rochester itself are busy men, and appear not to suffer from the presence of the clinic.

The clinic is very much talked about by everyone who attends it, whether he be patient or doctor. The result is that, if the patient does badly and dies, as occasionally happens, there is a dearth of patients, from the part of the continent from which he came, for some time. On the other hand, if the case does well, the reputation of the clinic is enhanced and the clinical material from that part of the country is increased.

To give an instance of the latter case:—

During my stay of two or three hours in the ear, nose and throat clinic, a bewhiskered farmer—I took him to be—about 56 years of age, came in to report. A few days before he had come from his distant home to the clinic, complaining that he had been for fourteen years a sufferer from tic douloureux.

The doctor in charge had injected alcohol into the region of the tri-facial nerve. The effect was almost magical. The man who for many years had scarcely been able to open his mouth and had been obliged to live almost entirely on warm milk, gently sipped, who dared not try cold water for fear of the excruciating paroxysms, was now able to take refreshing drinks of cold water. His face was lit up with smiles, and his enthusiasm was good to behold.

He was beginning to enjoy life again after a long drawn out period of torture; and his pleasure was not dulled by the conservative statement of the doctor that he must remain under

observation for a few days longer, in order to see whether or not the painful seizures would return, nor by the prediction that sometime he might again be a sufferer from the terrible affliction. These cases often do not recur for years; frequently remain permanently cured. The expression of gratitude on the part of the patient and the straightforward and modest attitude of the doctor recalled to my mind the maxim of Dr. Paré, "I tended him; God healed him."

The most of the return cases in this clinic are the common ones of running ears, diseased tonsils, cancer of the eyelids, deafness due to various causes, and sinus disease.

In purulent discharges from the middle ear good results appeared to be obtained largely by first cleansing the canal, followed by the introduction of about one half dram of saturated solution of boracic acid in alcohol.

Cases of lupus and superficial carcinomata were treated by radium, with good results.

All minor operations on patients able to walk about are done in the clinic building, such as, speaking generally, may be done under local anesthesia. Following these operations or treatments, the patients retire to their hotels or boarding-houses.

Reverting to the clinic for the treatment of the special sense organs, the work is carried on in four rooms en suite. The two end rooms are about twelve feet long by nine in width, the nine feet intervening being divided in two by a partition parallel to the outside wall. One of the rooms thus made—next the outside windows—constitutes a third small examining room; whilst the inner room next the waiting corridor (about the same size) forms a passage way between the two rooms. This is used for cautery treatments, and for giving such treatments as require insufflations of compressed air. Beside the air valve is a sputum sink. On a small table beside the cautery stands a bowl containing alcohol, into which the tips of the sprays are dipped to disinfect them.

The other three rooms are simply furnished—a small three-shelf wall cabinet about 2 ft. x 2 ft. x 5 in., which contains a few special instruments; a small three-tier shelf stand for dressings; a small table with a 2 ft. x 2 ft. top and an under shelf.

On the top of the table stand five or six two-ounce bottles—alcohol; 10 per cent. cocaine solution; 1-1,000 adrenalin; 1 per cent. novocaine, etc.

On the other side of the second story of the clinic building is the X-ray department. Here several men are employed—all leaders in their field. In one suite of rooms the thorax work is done, in another the kidney and pyelographic, in another the colonic, and in another the stomach.

The writer spent an hour or so with Dr. Carman, in the suite devoted to the examination of the stomach. With Dr. Carman were associated two assistants. The patients were brought from the dressing-room, through an ante-room about 8 ft. x 10 ft.—used for making plates when necessary—into an inner room of about the same size, where fluoroscope examinations were made.

An attendant brought the patient; also a brief general history of the case.

The patient's stomach had been emptied by fasting or lavage.

One of the assistants asked a number of routine questions, the answers to which were instantaneously noted on a special stomach form—questions relating to the pain, its duration; its character; vomiting, etc. This took about one minute. The patient was then made to stand on a low platform between the tube and the screen, in front of the seated examiner.

A second assistant placed in the right hand of the patient a pint bowlful of an emulsion of barium sulphide, which was drunk. The current was turned on for a few moments, then off for a few moments. The spectators could see the shadow of the ingested material entering the stomach as a blackened shadow. The folds of the viscus and the movements could be easily observed.

As soon as these were noted by the examiner the assistant handed the patient another drink of the same sort—a solution of bismuth in combination with starch or potato—with words of encouragement.

As this added portion was ingested the stomach was seen to distend—the wrinkles and folds flatten out. A few interrupted series of sparks flashed out while the roentgenologist moved the fluoroscope screen from side to side, up and down, and at various

angles. Having secured all the views wished for, the patient was courteously dismissed.

I was pleased for the patients' sakes, in the dozen who were examined, to note no serious pathological abnormality, cancer, ulcer, hour-glass contraction, gastropstosis, etc., though the workers, I fancied, were a shade disappointed at the end of the hour to find that nothing of great positive value had been discovered in the series. The negative evidence, of course, is of much value to the surgical chiefs, as learning what the trouble is not, they are, by exclusion, so much nearer arriving at the diagnosis.

It appears that ulcers situated near the lesser curvature of the stomach posteriorly cannot be successfully shadowed. In other parts of the stomach they often show on the plate as round black spots about the size of a small bean. During an operation I noticed one of the brothers recognize one of the posterior ulcers by touch. It had not been revealed by the X-ray.

Leaving the clinic we will proceed to St. Mary's Hospital.

On the top floor of the east end of a great four-storied block building is a suite of operating room and annexes. In six of these the chief surgeons operate continuously from 8 a.m. until 1 or 2 p.m., or even later, depending on the number of cases.

Herewith is a schedule of the operations noted for one day.

Room I.

Exophthalmic goitre, thyroidectomy.

Left ovarian cyst, subtotal abdominal hysterectomy.

Gall-bladder and duodenum, partial pyloric obstruction.

Explore stomach. Ulcer.

Nephrectomy, right kidney for pyonephrosis.

Room II.

Subtotal hysterectomy.

Pyloric obstruction.

Dilate and curette. Appendix and examine pelvis.

Right nephrectomy.

Kraske. carcinoma rectum.

Room III.

Total abdominal hysterectomy.
Gall-stones.
Appendix and examine gall-bladder.
Epithelioma, larynx.

Room IV.

Adenoma of thyroid.
Resection mass, right thyroid region.
Cyst, right neck.

Room V.

Exophthalmic goitre. Ligation.
Explore gall-bladder and stomach.
Repair cervix and perineum.
Tonsils and adenoids.

Room VI.

Adenoma of thyroid.
Right hydrocele. Left omentoceles.
Tonsils and adenoids.
Inflammation gland, left neck.

The Mayo brothers and one assistant do general surgery; one assistant does bone surgery, another brain surgery, and the sixth corrects deformities.

Between operating rooms I and II there is a sterilizing room. A second sterilizing room serves the remaining three, if I remember well.

The dressings are sterilized in bundles instead of in drums. The sterilizers are some 30 in. in length and about 24 in. in diameter. The usual water, instrument and utensil sterilizers are also in evidence.

The wash-up for surgeons and nurses is in the operating room, water from the regular hot and cold water taps being used. Dr. William Mayo informed me that as the water supply to the hospital was sterile, and all of that passing through the hot

water tap had been boiled, they have no compunction about washing up or cleansing their gloved hands during an operation in this water. The tap is manipulated by the means of a foot valve, and ejects a copious stream. On the mouths of the taps are tied layers of gauze.

The operating rooms are some 16 ft. x 18 ft. There is an observation stand in each, capable of accommodating a dozen onlookers. Over the operating table in room No. I is a large mirror suspended from the ceiling, which affords a good view of the operation.

The instruments and dressings are spread on a rather spacious table conveniently located. These tables are covered with sterile sheets, as is also the wall behind them to a height of some thirty inches.

The more frequently used instruments are placed on a table attached directly to the operating table—just over the patient's knees. Beyond this, between the patient's lower legs, is a basin for the soiled sponges and used instruments. The two types of operating tables used were: (1) A German, on the single, heavy pedestal, revolving and adjustable as to height, adapted also to various positions, built by the Kny-Scheerer Co.; and (2) the Minnesota White Line table, manufactured by The Scanlan Morris Co.

The patients are disrobed in a small room near at hand, and brought through the corridor—among many doctors, quite often—into the operating room, where they meet the operator, climb on the table and go off quietly.

I asked Dr. Charles Mayo if this procedure of giving the anesthetic directly in the operating room met with his approval. He said that it did. He said that he liked to be present in the operating room to meet his patients when they arrived. Where they had seen him at the preliminary examination they liked to have him present while the anesthetic was being administered. It gave the patients confidence. I did not notice any shrinking or diffidence on the part of the patients.

The surgeons do not use any other anoci association methods, as far as I observed, except the psychical as above exemplified.

"Dr. Crile is a great surgeon," said one of the staff to me, "but not because of anoci association."

For years nurses have given the ether, and, I believe, with good results. It is claimed that women perform this duty better than men. They are not tempted, as doctors are, to watch the operator. It is a natural process—maternal—to be put to sleep by a woman. The point is of psychological significance.

The ether is administered through an ordinary inhaler covered by many layers of gauze. When the under layers are well soaked several thicknesses are superimposed, which keep the fumes from escaping into the air. The upper layers are opened when fresh anesthetic is given or more air is needed.

The patients are strapped down to the table by the wrists and ankles. While I did notice the patients move a little I did not observe that the operators were bothered with abdominal straining.

On no occasion during my two days' stay did I notice any of the surgeons exhibit the slightest interest in what the anesthetist was doing. I noticed that the patients in Dr. Wm. Mayo's room were not deeply under. I asked one of the anesthetists as to this. She told me Dr. Mayo preferred that the patients be kept near the waking margin rather than deeply under.

The anesthetist appeared to me to pay no attention to the pulse, pupils, or conjunctival reflexes. The respiration seemed to be the main thing looked for and listened to.

It is quite an amusing and edifying experience to be present during Dr. Wm. Mayo's operations, particularly if the doctor is in a reminiscent, didactic, homiletic or story-telling mood.

The greater number of operative movements with him are like those of the skilled musician, automatically playing a well-remembered selection on a piano; the muscles and lower brain centres do the work in hand, while the upper brain is reflecting, remembering apt incidents, salient points in the character of friends. These are reproduced with dry humor, sarcasm or homely touch.

The senior brother loves to take a crack at the ultra laboratory refinements and the over emphasis often laid upon them

(to quote hm) "characteristic of a well-known medical school—too well known to be mentioned."

These superfine points Dr. William Mayo refers to as the pennies and nickels of diagnosis; and are, he declares, often made much of, while the ten-dollar bills are overlooked.

One forenoon, while operating on a case of gall-stones, he opened a monologue in this vein:—

"You know," said he, "some of our bright young men will spend hours investigating a case of this sort and find a long list of signs and symptoms, and perhaps overlook the two great diagnostic points in the case, the mass under the liver and the colic. I know one of these young men, a graduate of an A1 college, with a good training here. After looking around for a place to settle, he came to me to say that he believed he would go out to a certain locality. 'There's only old Dr. Smith there,' said he, 'an old fogey. He's twenty years behind the time; he can't do a blood count, a stomach analysis, or any of these new stunts. I believe that is the place to start.'"

"The young man went to the place, and I learned that his pride was very much hurt on one occasion.

"After making a very careful examination he found a number of diagnostic pennies and nickels, but was uncertain what the real trouble was. The family, getting anxious, called in old Dr. Smith, who, after a few moments, made a positive diagnosis on a couple of ten-dollar bill diagnostic points, much to the dismay of the young man. Dr. Smith was trained to look for big things upon which the diagnosis of most diseases can be made.

"You know," Dr. Mayo went on, "there are everyday diseases and Sunday diseases. Give me the man who can make a diagnosis of an everyday disease. We sometimes find a man who can make a Sunday or holiday diagnosis, but who is an utter failure on the everyday diagnosis.

"Now, take the subject of occult blood, for instance. We hear a great deal about occult blood. 'Occult blood'—you know what 'occult' means. You remember, years ago, when we were younger, occasionally Hermann, Keller, and other magicians used to come to town. You have seen them." As he said this,

Dr. Mayo's twinkling grey eyes were turned inquiringly upward under his heavy eyebrows to the visiting doctors ranged on the observation stand.

"The town people all turned out. One of the stunts the magician did was this:—

"He asked someone to lend him a top hat. Well, about the only fellow in the town who owned a top hat was the sheriff. (You know the sheriff is always a good fellow, he has to be a good fellow, a popular fellow, or he wouldn't be sheriff. And he wears a top hat.)

"Well, everybody looked at the sheriff, and they called out to him to lend his hat. So the sheriff, getting red in the face, handed up the hat.

"The magician took the hat, covered it with a cornucopia, and gave it a shake. He then put in his hand and pulled out a big bouquet of flowers. He put in his hand again and hauled out a rabbit. He then withdrew to the rear of the platform, stumbled and fell upon the hat, apparently accidentally, crushing it flat. Everybody laughed. The magician looked horrified at the damage he had done to the hat. But with a few magic movements he restored it to the sheriff as good as new.

"That is doing the occult; that is what occult means. So whenever I hear about occult blood, I think of Keller and the sheriff's hat.

"Our own laboratory diagnostician triumphantly reports that in a stomach analysis he has discovered 'occult blood.' Now, what does that mean? Well, it doesn't mean much to me. What definite information does it give? Little or none. This blood may come from an ulcer, or a carcinoma; it may result from the use of the toothbrush—you have heard those fellows cleaning their teeth in the morning in the sleeping car, which operation sounds like an old woman scrubbing the front steps. Well, those fellows will have 'occult blood.' It may also result from eating meat; and from other sources. You can't count upon it. It is one of the diagnostic pennies."

This straining after the comparatively unimportant was emphasized over and over again by the chief as he handled the intestines, dissected and stitched.

"Ochsner," exclaimed he, looking up again, "tells a good story, as he alone can tell it with all the frills. I cannot attempt to reproduce it as he tells it. It was in regard to a preacher who came to take charge of a church in a certain village. Now there belonged to this church a horse trader. The preacher needed a horse, and, naturally, turned to the horse trader to procure one for him.

"So he asked the horse trader if he would sell him a horse. A great struggle took place in the horse trader's mind. It is delightful to hear Ochsner describe the agony of the man—torn with conflicting emotions—his desire not to cheat the preacher—to overcome his long-acquired habit of over-reaching, and, on the other hand, to make something on the deal. He did not want to lose his status in the church, neither did he want to lose his reputation as a horse trader. The horse dealer asked for a day's grace. The interval was one in which there was a great battle in the man's conscience. The following day the minister returned and inquired if he had picked out a horse. The trader replied that he had, and set the price. 'But,' said he, 'he has one or two faults I ought to tell you about.'

"'What's the matter with him?' queried the parson.

"'Well,' the trader replied rather hesitatingly, 'if he gets loose you can't catch him.' The preacher thought for a moment. 'Oh! that's all right,' he said, 'I am going to keep him in the stable, when I am not driving him. He'll never be loose. I'll take him.'

"So the preacher took the horse, hitched up, and drove off. But before he got many yards away, the horse trader, conscience-smitten, ran after him to tell the truth; and in a state of great agitation he blurted out, 'When you do catch him, he ain't worth a darn.'

"That's the way with some of these diagnostic findings," concluded Dr. Mayo, with a smile, "when you do get 'em they ain't worth a darn."

Society Proceedings

AMERICAN HOSPITAL ASSOCIATION—SMALL HOSPITAL SECTION

(Concluded from April issue.)

MISS McCALMONT: Mr. Chairman, this, of course, is the biggest problem, I believe, in hospital management. There is a great deal to be said on both sides, but I have yet to see a hospital that is satisfactorily managing a central diet kitchen. It is almost impossible to get the food to the patients properly hot or properly cold. Undoubtedly the trays are served more attractively and sent up in many ways in better condition when served from a central diet kitchen under the supervision of a dietitian or a nurse who is specially detailed; but it is most difficult to get it to the patient in a satisfactory condition, because when it is sent out it is sent on the assumption that the patient is ready to eat it. In many instances the patient is not ready; the patient is being visited by the doctor or some form of treatment may be going on, or something which will interfere with the patient getting the tray at the time she is supposed to get it. In the Stanford Hospital in San Francisco we are trying a new experiment. We are having the separate diet kitchens on each floor. The food is to be cooked in a central or special diet kitchen. It is to be sent in bulk to the smaller diet kitchens, but the nurses who are in training in the diet kitchen are to go to the smaller diet kitchens and serve that food, which does away with the very logical objection that special nurses come into the smaller diet kitchens and, of course, the first one there takes their choice of everything for their patient; the special nurses will not be allowed in the kitchens, but the nurses who are in training will serve the trays and the special nurses will be notified that the trays are ready and taken in to the patients only when the patients are ready for them. Of course that is an experiment, but it seems to me it is a very logical solution of the food problem.

THE CHAIRMAN: Miss McCalmont, may I ask how large a hospital that is?

MISS MCCALMONT: Well, the new hospital is to be 200 beds. They already have a hospital of about 180 beds. Of course this problem for the smaller hospital is comparatively simple, but the larger hospitals find difficulty.

A LADY: Mr. President, I wish to say in our hospital we have 120 beds and for the past three or four years we have carried out this plan exactly that the lady has just mentioned and we find it extremely successful

MISS BURNS: As far as the special nurses are concerned, I have the same plan also. They are not allowed to go into the diet kitchen at all. We have the diet kitchen door cut in two and a shelf there; they remain outside and their trays are passed out to them. But in our hospital the private patients are allowed to order special diet and the special nurse has to send in her requisition for what she wants. She gets it served on her tray and taken charge of by the dietitian, but they are never allowed in the diet kitchen. I have anywhere from 20 to 30 special nurses.

DR. MORRITT: I have been fortunate or unfortunate in having experience with both methods. As has been said, both methods have their advantages. With the central diet kitchen away from the floors, you have the advantage that no odor of cooking gets into your rooms. You also remove all the noise and rattle of washing dishes and preparing meals. With proper containers, electric heaters, etc., you can, by care and watchfulness, get your tray to the bedside hot or cold as the case may be. I had charge of a hospital for some years that did that and it worked satisfactorily. Now I have charge of a hospital where each floor has its own diet kitchen, and the rooms in the immediate proximity to the diet kitchen are not occupied unless the hospital is crowded. Nobody wants them because of the noise, especially in the summer time when you have to keep your doors open. There is noise of the preparation and cleansing of dishes, etc., afterwards, and the odor of cooked food sometimes before the meal is served, so the patients get an inkling of what is coming, which is always an undesirable thing. My chief objection to the diet kitchen on the floor is that it is noisy in the extreme

and the patients in the rooms adjoining know exactly what is going on. The advantage, of course, is that ordinarily you can get your tray to the bedside in better condition than you can bring it from a central diet kitchen.

THE CHAIRMAN: As was stated by Miss McCalmont, this is one of the important problems in nearly all hospitals and it is very valuable to learn from the experience of others. Now, we haven't arrived at any answer to the question. I think the central serving room and individual rooms are both in vogue to about the same extent. Let us have some positive statement in favor of or against one or the other.

MISS WEBSTER: Mr. Chairman, I have tried both. I think the most satisfactory way is to have a diet kitchen on each floor. It does have the objection that Dr. Morritt speaks of, but it is the only way in my experience to get the food to the patient in the proper condition.

THE CHAIRMAN: Score one for the individual diet kitchen.

DR. PACKARD: Mr. Chairman, I have a positive statement to make, because I have passed through the experience. A year ago, we built an addition to our hospital. Before the addition to the hospital we had serving kitchens on each floor. At that time we took under advisement having a central serving kitchen. In our new building we planned and put in a central service kitchen and made the original diet kitchen on the floor in the old building into private rooms. We tried that for about a year, and now we are going to tear out our private rooms and put our service kitchens back on the floors. It is true that the kitchens on the floor make considerable noise, especially with the dish washing but we are going to have the dish washing carried on in the main kitchen the same as before; send all the dishes to the main kitchen to be washed, and the trays set up and sent back on the dummy elevator to the kitchen, our chief difficulty being that we are unable to serve the trays, hot or cold, that we want to, and serve them in the fashion that they should be served.

MR. STEVENS: If I may inject one suggestion to the hospital people, just to overcome that very thing which the doctor spoke of. If we make our serving kitchens outside of the ward, outside of the rooms, so that we get two doors, we will say, let

those open from a cross-corridor, and not directly onto the corridor where the rooms are, so as to get no patient within a very close range of our serving kitchen. That minimizes the noise. In that way we can build our serving kitchen at each ward unit, and in that way overcome the difficulty which has been spoken of, and so make it possible to serve direct.

MISS ANDERSON: I think Superintendents here will be interested in the system which you might ask Miss Thrasher to tell you about.

THE CHAIRMAN: We would be very pleased to hear from Miss Thrasher.

MISS THRASHER: Our condition at the Robert Bent Brigham Hospital is not completed. We are a very new hospital, and while we have individual diet kitchens, I am not sure that we shall not make some arrangement to change it after we have worked on it for awhile. We are still working on our problem.

MISS THOMAS: I think there is more waste in the separate floor service room than there is in the general serving room in the hospitals.

THE CHAIRMAN: Now, of course, this problem is not alike in two places. For instance, with the Peter Bent Brigham Hospital I know they have a great deal of territory to cover, being a hospital on the pavilion plan. It would be almost impossible to have a central service room. It would have to be a kitchen for each ward unit. Are there any others who would like to speak, so that we may make some converts, one way or the other?

MISS REED (Monongahela): In April we moved into a new building with the serving rooms on each floor. Prior to that, in the old building, we had a central service room. Now, with practically the same serving force we are serving from the central room. We find it a very great advantage, having separate serving rooms on the different floors, with only a very slight increase in waste. Possibly a slight increase, but very slight. And there is simply no comparison in the shape in which we can get the trays to the patient. We feel that the separate serving room from each floor is far and away ahead of the central serving room as we had it.

THE CHAIRMAN: May I ask how large a hospital you have?

MISS REED: At present we have a sixty-bed hospital. Our old building was forty-five beds.

THE CHAIRMAN: And how many floors?

MISS REED: We have two floors with patients, with the kitchens on the first floor, connected with the serving rooms by a waiter going up and down and in that way handling the food in bulk to the serving rooms, and from there serving.

Question 6. Have hospitals the right to fix the rate which nurses specializing private patients in the hospitals shall charge?

MISS METCALFE: Personally, the experience I have had is that the price charged for graduate nurses is such as the average rate in the city or town where they are nursing. But I do not believe the hospital has the right to fix the charge. In the hospital where I am now, we know perfectly well what the nurse is going to charge, and so state the case to the patient. That is usually paid directly to the nurse. I would like to hear what the experience is in other places.

MISS WEBSTER: I think the superintendents should have supervision of the charging. I have had some experience along this line, of nurses overcharging; for instance, charging ten dollars for a day in a hospital where they have all assistance that they require, by pupil nurses. I think the charges should be uniform, and patients should be protected.

THE CHAIRMAN: I may say, in the cities up in this part of the country, that is governed by the Nurses' Register, which is more or less of a labor organization, I might say labor union of the nurses. They get together and fix the rate and we accept it as the going rate, and we would not stand for nurses charging any more; nor would we like to see them charge any less. I presume that is the custom elsewhere. The only question that comes up is where nurses serve for less than a week, because the registry rate is usually so much per week, and in some places they fix it so much per day, as well.

Question 7. Comparative merits of coal, gas and electricity for cooking and heating.

DR. PACKARD: Offhand, I should say that coal has its disadvantages, as it has advantages. Among its disadvantages, I should say first that it was dirty; second, that it requires a great deal of work to build a coal fire, keep it going, and keep an even heat. It is almost impossible to keep an even heat with a coal fire; and, third, that you cannot turn out the fire as soon as you are through with it. Those are three disadvantages, I believe, to coal heat.

On the other hand, if you are going to have a steady fire in a range during the day, it probably would be more economical than the other heat.

I cannot see that gas has any disadvantages as a means of cooking. It is easy to start, you can maintain an even heat, and you can turn it out when you get through, and you aren't burning up any fuel unless you are using it. In regard to electricity; I don't know. The only thing that occurred to me was this, that if you happened to be in the midst of a family dinner and the electric current should give out, you probably would be glad that you had either gas or coal. That would be one objection that I would have to electricity, the possibility of the loss of the current, the loss of the heat in that way. I also believe that electricity, as a matter of cooking, would probably be rather expensive, though I could not give any relative figures regarding the expense of coal and gas and electric heating. On the whole, I should say that gas furnished the most advantages, inasmuch as it is clean, there is no dirt connected with it, it can readily be started, you can regulate the heat to any point or degree you want it, and as soon as you are through cooking, you can turn the gas off.

THE CHAIRMAN: The question is open for discussion. Let's have some more opinions, if not experiences.

MISS BARRETT: Mr. Chairman, the hospital with which I am connected, in Grand Rapids, has had coal stoves, and we have taken them all out and are now using gas. We find it is not any more expensive. We are building a new hospital; we are going to use gas in that.

DR. MORRITT: I would like to add this, that at one time I looked into the matter of cooking with electricity. Of course, I was in a place where electricity could be gotten very cheaply;

and I found there was not an electric stove on the market that would take a large roast of meat. I wrote one of the large electric companies and they said they were not quite ready to put one on the market yet. They all could furnish the apparatus for small family cooking, but not for a large place.

THE CHAIRMAN: I think that is the situation, they cannot furnish an electric stove big enough for a hospital.

DR. POTTS: I would like to know the price that the lady has to pay for gas, where she is cooking with it.

THE CHAIRMAN: Miss Barrett, will you give us the rate of your gas?

MISS BARRETT: I don't believe I can give you the exact rate, but we have a special rate in Grand Rapids.

THE CHAIRMAN: It is under a dollar a thousand feet there, is it?

MISS BARRETT: I think so, something about that.

DR. MATHERS (Winnipeg): I would like to relate our experience in cooking with electricity in our new municipal hospital in Winnipeg. This is a hospital for contagious diseases, a 200-bed hospital. Winnipeg is situated perhaps fortunately. That city has within the last three years established their own power plant seventy miles from Winnipeg. They carry the current seventy miles into the city, and supply current for heating purposes at the rate of one cent per kilowatt hour; that is, for the first fifty hours' continuous load, after 500 continuous hours, that is, in the month, it drops to eight-tenths of a cent. Our hospital which, as I say, is a municipal hospital, is supplied in the main kitchen with an electric range, built by the General Electric Company, a counterpart of the ranges which are used in the U.S. battleships; except in this regard, that we had to have it built especially for our hospital, because they did not build one of exactly the size we wanted. The range itself cost \$1,700, something more than it would have cost if we could have used the standard range. Each of the diet kitchens is supplied with a small electric range, with two hot plates and an oven. I might say also we have the building piped for gas, so if the current fails at any time, we are ready. There is an arrangement there, also, between the electric railway company and the city, which are to a certain extent competitors, that if

one plant fails the other takes up the work. So we are comparatively safe.

Now, some time ago we undertook an investigation of the work that this range was doing. We took the number of full meals that we cooked in that range during one week, and we had a meter attached to the range so that we could ascertain the amount of current consumed. Working it out, we found that we are cooking full meals (I mean full meals for the help and those patients who are on full diet) for less than one-third of a cent each.

Now, as I say, we are perhaps more fortunately situated than most hospitals. In the matter of cooks, we averaged about a cook a day for the first two weeks. These were all female cooks, and they gave up at the end of the first day, generally. At last we managed to get a chef who apparently has mastered the thing completely, we have absolutely no trouble with it. The ovens are built in such a way that the current may be turned off and you can use them between one and two hours after the current is off. The diet kitchen ranges are very useful. They can be turned off when not being used. They are clean. The only disadvantage is that a careless nurse or ward maid may perhaps spill some liquid over the plates and destroy them, which costs us \$1.50 to renew. I just mention this to show that electric cooking is still a possibility.

DR. POTTS: Mr. Chairman, I would like to know something about steam cooking?

THE CHAIRMAN: Well, let's hear of steam cooking. Do you have some experience yourself to give us?

DR. POTTS: No, sir.

THE CHAIRMAN: You wanted to learn something about it?

DR. POTTS: Yes, sir.

THE CHAIRMAN: We have heard of the principal merits of cooking by coal, gas and electricity. This gentleman wants to know something about the merits of cooking by steam.

DR. MORRITT: You mean by that, steam as displacing coal and gas entirely?

THE CHAIRMAN: It couldn't do either. I presume we have to have steam to operate the hospital. I don't think this question comprehends the use of either gas or electricity for the production of steam. I suppose steam is used for the cooking of vegetables, cereals and puddings, and perhaps cooking meat. I don't know of anyone making griddle cakes by steam, or frying eggs.

MISS SMITH: Mr. Chairman, we have in our kitchen a steam jacketed kettle, whereby we roast our meats and cook our soups, and we cook all our vegetables in the steam cooker. Of course, we cannot fry.

THE CHAIRMAN: You cannot get a dry heat?

MISS SMITH: We roast our meats.

THE CHAIRMAN: But it doesn't scorch them.

MISS SMITH: No, it roasts them beautifully.

THE CHAIRMAN: Yes, that is quite general, I think, roasting meats, cooking soups and cereals and vegetables by high pressure steam.

MISS ANDERSON: On this question of fuel I would like to know if any one here has found a fireless cooker that is large enough to be of any use as an auxiliary in the cooking of food. It has always seemed to me if one could be found large enough, we could find a great deal of use for it.

THE CHAIRMAN: That is a pertinent question, the fireless cooker is for hospital use. Has anyone any experience?

MISS RITCHIE: Mr. Chairman, we have a very good Caloric, sufficient for our use. We have only a 30-bed hospital. Our cereals, some meats, and most vegetables are cooked in the Caloric. We have a nest which lends itself very well to small quantities for special diet. Our cereals are all cooked in that way, in sufficient quantity for our numbers. There are two sinks, and each operated with two heated stones. We find it sufficient, but I have never seen a large enough one for a larger number.

THE CHAIRMAN: With the individual diet kitchens or serving rooms. I presume it could be used. I would like to be enlightened upon the baking in hospitals, and how extensively coal, electricity or gas is used for that purpose, because of the fact that I am just contemplating installing a bakery, and want

to know which to adopt, the coal or gas oven. Will someone please tell us about their experience in baking, and what means of heat they use.

MISS BARRETT: We do all of our baking with gas. Of course, we only have a 75-bed hospital now.

THE CHAIRMAN: Do you find it more economical to do your own baking, than to buy your bread?

MISS BARRETT: Well, we like it better.



THE WELLESLEY HOSPITAL

THE following letter recently reached us from the Directors of The Wellesley Hospital, Limited, and should be noted:

"An erroneous idea seems to prevail amongst the laity that Wellesley Hospital is too expensive for people with moderate means, and we should therefore be greatly obliged if you would be good enough to correct the misconception if you have an opportunity of doing so. The mistake may be partially due to the fact that the reception rooms are furnished on a more lavish scale than is customary in the ordinary hospital.

"It is obvious from the enclosed card that the rates in this hospital are no higher than those in similar institutions.

"In every case the charge includes ordinary medicine and dressings, nursing by competent nurses, and board, the food being carefully prepared by an expert dietitian.

"The hospital is beautifully situated, and is at a sufficient distance from the street car lines to ensure a degree of quietness very unusual in a large city. It is open to the profession generally, and physicians are as free to attend their patients here as in their own homes, but have the additional advantage of a well-equipped hospital."

The Hospital World

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Editorials

THE HANDICAPPED HERO

THAT those who risk life and bodily faculties in the nation's welfare should have provided for them all that is possible of adequate means of recovery in

event of disability has been a matter of national concern.

The care of the sick and wounded of the allied forces has been organized to a degree unknown at any former period of war. But with our thought and planning devoted to present conditions in this respect, we are as yet making no provision for the care of permanent war invalids. We fail to realize that in a large measure it is the fear of permanent invalidism, and the consequent inability to make a living for themselves and families, rather than the fear of death, that deters many men from joining the colors.

Germany is already taking forehanded measures in this matter, which it would be well for Britain and her allies to consider.

First, of course, comes the hospital treatment, which includes the application of orthopedic and mechanical appliances to restore deformity of crippled parts. In many instances the authorities are furnishing artificial limbs where necessary.

The Bavarian Government is taking extensive steps in this direction, and has already established local committees throughout the kingdom, who are devoting their energies to a consideration of methods by which each permanently invalided soldier may be taught and furnished employment suiting his capacity. In fact, Bavaria is undertaking, as a Government measure, the work for those handicapped that has been in operation for several years in one or more of our leading American hospitals.

An official "trade adviser" is attached to the large Bavarian hospitals, who combines service with the hospital physicians in considering the degree of disability of the convalescent soldier, his chances to earn a living, and in what fashion. Workshops for trade instruction are being arranged in, or in close connection with, the hospital; and the crippled convalescent soldier is allowed, under careful medical supervision, to try out his powers as his strength permits, and to select what he can best do. Opportunity for further instruction in this direction is then continued after he leaves the hospital.

Courses of instruction are being given in left hand writing; the blind are being taught by experts; and special courses are being established for the deaf. All of this is systematically begun while the patient is still in the hospital, and continued under Government auspices after the patient leaves. The whole purpose is to make the crippled soldier a self-supporting and self-responsible man again.

The care of invalids, says Bavaria, is a function of the entire community, primarily of the Empire and the State, and this is especially true of war invalids. By this early movement which is being rapidly extended Germany hopes that the number of invalids who must be dismissed from her economic life, and who need care in institutions, will be very small.

From the earliest moment of his convalescence to give the invalid the right mental attitude, one of hopefulness of further service, to assume his further

economic value to the community and help him to realize the same, and to open up organized avenues of responsible and worthy work for him is an undertaking that yet remains for Greater Britain's most serious consideration.

AN UNSEASONABLE LOSS

A GENERAL and sincere sympathy will be felt with Mr. John Ross Robertson in the recent destruction by fire of the Lakeside Home of the Sick Children's Hospital, Toronto. This gentleman's munificent philanthropy in the cause of sick children is too well and widely known to need comment. That the results of his untiring effort and princely generosity should, in so large measure, be destroyed will be much and widely deplored. In spite of the many claims this unhappy year is making upon Canadian giving, it is to be hoped that Mr. Robertson will, in spontaneous fashion, be given the financial support necessary to enable him to replace the burned building.

It was an unfortunate timing for such a loss. From one to two hundred sick children, and not a few nurses, grown weary of looking out upon brick walls and a noisy thoroughfare, were living in anticipation of the spacious outdoor living and the lake breezes and sky views that would be theirs in only a few short weeks. The convalescence of the sick child, the gradual return of health and strength that is his rightful heritage, is one of the pleasant things to con-

template, and it is a matter of deep regret that so valuable an accessory to this end as is the Lakeside Home should be lost, even for one season, to the children of Toronto.

THE TOLL

AT this moment of writing when all Canada is both deeply proud and deeply mournful—ablaze with enthusiasm yet wrung with an indignant grief—it is fitting that this journal should express, however inadequately, its sympathy with the losses sustained by so many Canadian families among our men at the front.

Before this brief note appears in print these losses may have been doubled or trebled. But while we face the coming weeks with great anxiety, yet we do so with pride, knowing that what our boys have done they will continue to do.

To the parents of these sons who have so splendidly laid down their lives, this Journal offers all it can convey of both sorrow and congratulation.

To Dr. G. Sterling Ryerson, of Toronto, as a well known member of the medical profession, we wish especially to extend our sympathy. Dr. Ryerson's long leadership in the Canadian Red Cross movement, his interest in all national and patriotic matters, as well as his U. E. L. ancestry, ensured that his sons would be among the first to respond to the call to arms; and their gallant conduct has given their par-

ents the proud joy of knowing that in the annals of this awful war

“ Whatever record leaps to light,
They never shall be shamed.”

FOR ANIMAL RESEARCH

OF great significance to the medical world of this Continent is the announcement that the Rockefeller Foundation has recently been empowered to establish an institute of animal research on a scale and with equipment that will make it one of the great laboratories of the world for the study of comparative pathology.

The institution is to be built on grounds adjacent to Princeton University, and although it is stated that it will operate independently of the university, there is no doubt that the two laboratories will work in cordial co-operation, while the new institute will, of necessity, prove a strong stimulus to the Biological Department of Princeton. The plans of organization are not yet complete, but the large scope thus far outlined point to the fact that the new institute aims to compare with the famous Pasteur laboratories in its influence on medical science.

The plans include a completely equipped Foundation for the study of bacteriology in its relation to animal industry; and as such diseases are frequently cognate to human disease,—bovine tuberculosis, for

instance,—the result of such a widely comprehensive investigation will be far-reaching in its influence.

It is stated that Dr. Theobald Smith, of Harvard, one of the most eminent bacteriologists in this country, is to be in charge of the scientific work, and will gather a corps of assistants. Over a million dollars will be put into laboratories and equipment as a beginning.

The establishment of this animal bureau will probably revive the frequent and warmly debated subject of vivisection—in how far experimentation upon animals should be utilized to serve the human race, when such involves the suffering of animals. A volume on this topic entitled “Animal Experimentation and Medical Progress,” from the pen of Dr. W. W. Keen, just issued from the press, endeavors to show that the charges of animal cruelty made by the anti-vivisectionists are often founded on misconception, and lack of knowledge of operating technique. The writer offers very convincing arguments in defence of such method of research, and shows how great things have been accomplished for the human race during the past half century through such experimentation. As proof thereof, Dr. Keen mentions the control of yellow fever, of tetanus, of typhoid fever, and of malaria, in which scientific progress has come from experimenting upon the lower animals.

What the founding of this new Rockefeller Research Laboratory means in opportunities for ad-

vanced studies in biological science only the medical world realizes; what it will bring of development to the human race cannot be prophesied.

DR. H. A. BOYCE RESUMES GENERAL PRACTICE

DR. H. A. BOYCE has resigned his position as Superintendent of the Kingston General Hospital after seven years' service. Dr. Boyce is well known to the hospital world, having been President of the Canadian Hospital Association, and for two years officiated as Secretary of the American Hospital Association. In American parlance Dr. Boyce is a "live wire," having worked with great energy and enthusiasm.

Dr. Boyce, we learn, purposes opening private practice in Kingston—a good man lost to the hospital field.

The HOSPITAL WORLD wishes Dr. Boyce much success in his new vocation.

Original Contributions

THE PRIVATE HOSPITAL AS A PUBLIC INTEREST *

BY W. T. GRAHAM,

Superintendent, Iowa Methodist Hospital, Des Moines, Iowa.

THE increasing hold of the hospital idea upon the mind of the public makes the successful presentation of a hospital enterprise much easier to-day than a decade since; while the multiplicity of the calls upon the purse for civic or social betterment makes it more necessary that the appeal be clean cut and convincing.

Exciting public interest is largely a matter of education, where a new hospital is in view. Where an established hospital seeks funds for expansion, it becomes a matter of giving publicity to the project.

A prominent advertising specialist recently said: "A successful advertisement arrests attention, keeps attention to the end, and is convincing. Furthermore, a successful advertiser must have *something worth the price asked*. You cannot boost a bad thing by good advertising. Let us see how this applies to the hospital: Support for a hospital enterprise requires good advertising: Ethical, dignified, tactful, convincing expressions of policy; record of service and illustrations of its public utility will secure sustained interest. .

Let me suggest some of the motives influencing gifts to hospital work, as indicating the nature of the effort necessary to secure attention.

Let us assume, that underlying all motives is that of the Good Samaritan—true benevolence—or the conception of responsibility to God for the furtherance of His Kingdom on earth. This is undoubtedly the most common and admirable of all motives. However, there are those who seem to be only in-

*Read at the meeting of the American Hospital Association, St. Paul, Minn.

fluenced by self-interest—the expectation of gain direct or indirect—the love of personal prominence in a desirable association or notable movement. A hospital may favorably influence the value of real estate in a neighborhood, or it may mean a demand for supplies that would profit the prospective giver.

Pride in some denomination, some fraternal order, or some peculiar professional practice, is often appealed to successfully; civic pride that a city should have hospital accommodations equalling those of some other ambitious rival; or the intelligent appreciation of the true value of the hospital to the community; or the motive may be the desire to erect a memorial to some loved name.

The raising of funds for a well discerned public necessity, ably managed, needing support for the enlargement of its work, is easier now, than securing assistance to duplicate efficient existing hospitals. This is one of the significant indications of the value of the effort of hospital workers to educate the public to a better understanding of sane hospital establishment.

The sympathy of the public is large; it is often incredulous and suspicious of the motives of those seeking funds, but is responsive to the proper touch.

Nothing appeals to this emotion more strongly than the exhibition of sympathetic service to the needy. Hence it is natural that as an appeal nothing should be more used or abused. So, people are beginning to look more closely into appeals made from that source. They are giving as never before, and inquiring in the same way as to the uses made of funds subscribed to ameliorate the condition of the unfortunate.

Needed funds will go with greater facility to the hospital of efficient service; and in the public mind this means more than the giving of a dose of medicine on time, or an operation at an opportune moment. Technical skill will count for much with the trained worker, but the public in general judge hospital care by what it can see and understand. Intelligent sympathy is the keynote of success in hospital work. The feeling of security that a patient's welfare is being safeguarded at all times will do more to enhance the reputation of a hospital than any one

single agent. The reputation for courtesy is one of the best assets a hospital can acquire. Courtesy and tact will sound its name farther than any subtle appeal.

The successful hospital is accommodating—willing to pause long enough to consider reasonable requests, and to grant them, if they do not interfere with some greater right. Kindness never appears better than when clothed with firmness; and kindness and consideration should never mean a departure from a well digested plan of practice.

Frankness in dealing with the public will do much to promote confidence. The public must be taught to feel instinctively that statements represent exact conditions; that there is no juggling with figures presented.

Probity within the institution must be unquestioned—that funds given for specific purposes will not be diverted to some other use, however laudable. The public must have confidence in the wisdom of the managers—that enterprise and ambition will be governed by conservative consideration in every proposal involving considerable expenditure, or exchange of policy.

Impartial consideration, in the relation to patients, physicians, friends, and nurses, will do much to cultivate friendly interest. Nothing furnishes better food for the vicious than the exhibition of favoritism to others. Recognition of ability, of kindliness of purpose, of interest, is laudable; but the distribution of favor must be founded upon better premises than these. According to their needs—as our ability lies—without preference or precedence.

These things, however well developed, will not take the place of technical efficiency. They will not apologize for blunders in the reception of patients, omissions in expected attention, or lack of compliance with orders.

The business conduct of the hospital is important to that large class of prospective givers, who have amassed a competency by the practice of economy and business forethought.

The hospital should welcome friendly inquiry as to its methods.

Business success comes from a close study, and comparison of resources, collections, and expenditures.

Are room rentals, board of patients, visitors, and special nurses, medicines, dressings, skiagraphs, massage, medical and electrical baths, anesthetics, barbering, telephones, and fans, bearing their proper share of the burden? Are some patients bearing part of the cost of service commonly rendered to others, or does the cost in each case represent the financial obligation of the patient? Are collections adequately looked after? *Be sure the hospital service is good, and then insist upon payment for it, even through a process at law.* Notes should be secured for unpaid balances before a patient leaves—it has many advantages.

Do expenditures represent equal returns? Are purchases made with the same intelligent forethought and knowledge of market conditions used by the prosperous retail merchant? Is the work planned to secure the best results from the smallest amount of help; and proper consideration given to the money value of the careful, intelligent, staid employees?

Is a proper check and inspection made of goods received, supplies issued, and materials discarded? Are issues based upon careful estimates of needs, comparisons of use, and proper supervisions of methods?

Is the domestic work planned by schedule, that each one knows the time and scope of his work? Is the mechanical department subject to the same care, scrutiny, and economical equipment to be found in similar successful commercial plants?

Are wastes inspected, recorded, and utilized? These things must be answered in a business manner to secure business men's approval.

Do the Board of Managers represent influential factors in the community? The Board of Managers must have the implicit confidence of the people. They must be men of high standing in the community, with high ideals—men who have made a success in life, without making a host of enemies. The Board must be a source of strength, by the mere association of their names. They must be interested, willing, and able, to give a share of their time to the enterprise. They must have friends who trust them, whom they can and will influence to give largely. The Board must represent enthusiasm, conservatism, and ability. They should not be selected for short

appointments. "Experience teaches," and "knowledge is power," have a new emphasis in this connection.

The public can always be counted upon to give a ready ear to statements concerning the cost, value, and amount of free service rendered the necessitous poor. This work cannot be carried on by funds furnished by receipts from patients, without injustice to paying patients, or to hospital donors. It should be generally known that the only requisite for admission to free care is inability to pay for the service to be rendered, and pathological admissability. There is, of course, the usual tendency of some applicants to confuse inability with disinclination. The exclusion of impostors, and making patients pay who are able, is a passport to public favor. Outside sources of information; and careful investigation should be utilized in determining the fitness of each applicant; but—once in let there be no grudging ministrations. Let sympathy and skill attend in the ward as in the private room. The inclusion of any part of service rendered at schedule rates, though less than per capita cost in statements of free service is misleading and unfair. Let the public know the work done for less than per capita cost; and—who pays it. Willingness to provide for the free care of individual cases, or the support of such work as a whole, for a definite period, is not hard to find. Intimate acquaintance with pitiful cases cared for; visiting properly safeguarded; appreciation of gifts, valuable or useless; casual exhibition of some of the wonders of modern hospital equipment, should be mentioned.

It seems hardly necessary to mention here the obvious, vital importance of the interest and co-operation of the medical men. Attach them with bonds of steel; but equate their enthusiasm and expectation that the project does not receive blows aimed at someone behind. Let the staff be selected from the representative men, in each branch, of such prominence that their names will be all the apology needed for their appointment. Give early recognition to the ability of the rising physician or surgeon, and attach him to the hospital in some capacity; thus providing against mutability in the strength of the staff by the ravages of time. There should be confidence in the invariable, ethical and impartial conduct of the hospital's relation to its

physicians. There are always men who will need more time and attention than others; but it should be of the same quality throughout. Let the medical men know that their co-operation is appreciated. The value of the hospital connection as an important factor in the community, and the conviction that the hospital and the physician represent the best combination for recovery, is a fact of growing significance. Let conservative consideration and deliberate action be the answer to impatient request; that the resulting equipment may be of generally recognized utility with the absence of expensive discarded experiments. The hospital without adequate funds cannot afford to experiment; but no hospital can afford to be without necessary equipment. Imbue physicians with the value of the hospital to the profession at large; its tendency to improve the general medical atmosphere; to elevate the conception of the physician's responsibility to the public; the stimulation of medical attention to the unfortunate; and a study of social conditions.

Show the public the strength of the hospital as an educational factor in the community, in the dissemination of useful knowledge concerning the nature and prevention of disease; that the nurses are filled with the hospital spirit in extending this knowledge wherever they go; that patients become conversant with better methods of care; that visitors get a new understanding of the value of preventive efforts; that women learn of better domestic methods; and men a better appreciation of their worth.

Establish cordial relations with the various charitable organizations. Make use of their facilities in investigations, and accord them a share of favorable consideration in handling their problems.

Let the practical-minded be shown as a public asset the value of disabled men and women restored to the ranks of workers, with the consequent relief of the burden of dependent children, or helpless adults; of the value of the crippled child restored to health and promise; the lessened burden of public care for chronic invalids, because of early recognition and attention; and the decreasing number of defective progeny by hospital precautions.

In the absence of city and county hospitals, let the public know the economy of aiding the hospital, in caring for public charges, as a lessening of public expense, but, "Beware the Trojans bearing gifts." Such patients should be admitted under general rules, and per capita cost should be insisted upon as the minimum remuneration.

In these days of social survey, the approbation of the representative commercial body or Board of Trade is a most important aid in establishing the need of a hospital enterprise.

The employment of efficient permanent field representatives is of proven worth. There is much in the regularity of presentation; in keeping the hospital on the minds of the people. Prominence in reflection is what brings sales to well advertised articles, and money bequests to hospitals. A field agent has the time to favorably influence large givers; he reaches also that large army of small givers, that total such immense gifts to charity each year. There is an army of modest self-sacrificing givers, without whom our hospitals would be diminished by over one-third. The importance of cultivating this field cannot be exaggerated. No hand too small, no tongue too weak, to help. Hospitals are built by large gifts, but sustained by small.

In cultivating interest we must distinguish between attracting attention, and securing conviction, as to the necessity and amount of funds sought. I question the ultimate value of sensational methods in attracting attention, unless the serious character of the institution be so well understood that it cannot suffer from any reflection of suggested flippancy. The efforts in securing permanency of interest seem more and more valuable—the keeping of the institution before the public by dignified, tactful, regular presentation.

A model hospital bedroom with a nurse in attendance at a fair or exposition; and abundant literature, that will cause people to think, will be worth more in the long run than the emulation of the methods of Jesse James: A window in a prominent location fitted up as a small babies' ward, with trenchant, pointed and easily read statements: A model emergency ward on or near a railroad centre: Illustrations of first aid in common disabilities may furnish novel features on a programme; Lectures and presentations at women's clubs, fraternal associ-

ations, churches, boards of trade, industrial plants, picnics, or conventions, need only to be mentioned as samples of activity.

Newspapers sometimes seek information against the recognized medical ethics of the sacredness of the body, or personal affairs; but if a readiness is shown to furnish them with items of general public interest, they will be found to be friends of great value. Notices of meetings, plans, social and professional gatherings, movements of officers, unusual or pitiful instances of hospital relief, will be found to be always welcome to their pages.

Harmonious co-operation with boards of health, lining up shoulder to shoulder with their efforts to better conditions, is at once the duty and the pleasure of the properly administered hospital.

In this brief sketch I have endeavored to show some of the ways a private hospital may become a public interest. I have endeavored to show how the hospital itself can be an advertisement to arrest attention, to keep attention, to convince, and to be **worth the price asked.**

Society Proceedings

THE SEVENTEENTH ANNUAL CONFERENCE OF THE AMERICAN HOSPITAL ASSOCIATION

This splendid meeting convenes at San Francisco, Cal., on June 22nd to 25th, inclusive. A magnificent programme has been prepared and it will repay ten-fold any one and every one interested in hospital matters to take the trip and spend a few days with the American Hospital Association, as no one can do so without coming away both a better and a wiser man or woman.

The following comprises the programme, as corrected to date of going to press:—

TUESDAY, JUNE 22, 1915.

9.30-10 a.m.—Registration and Enrollment.

Morning Session, 10 a.m.

1. Invocation.
2. Address of Welcome.
3. President's Address. Dr. A. B. Aucker, 1st Vice-President, Supt. City and County Hospital, St. Paul, Minn.
4. Report of Committee on Inspection, Classification and Standardization of Hospitals. Dr. John A. Hornsby, Chairman, Editor *Modern Hospital*, Tower Building, Chicago, Ill.
5. Report of Committee on Medical Organization and Medical Education. Dr. Joseph B. Howland, Asst. Administrator, Massachusetts General Hospital, Boston, Mass.
6. List and Nomenclature of Diseases and System of Filing. James L. Whitney, M.D., University of California Hospital, San Francisco, Cal.

TUESDAY, JUNE 22, 1915.

Afternoon Session, 2.30 p.m.

1. The Effect of Legislation upon the Schools for Nurses in California. Miss Anna C. Jamme, Secretary, Board of Registration of Nurses, Sacramento, Cal.

2. The Eight Hour Law, its Present and its Future. Miss Anne A. Williamson, R.N., Supt. of Nurses, California Hospital, Los Angeles, Cal.
3. High Ideals of Nursing. Mrs. Alice H. Flash, Supt. of Nurses, Massachusetts Homeopathic Hospital, Boston, Mass.
4. Progress in Nursing. Miss Harriet Leek, Principal, Grace Hospital Training School for Nurses, Detroit, Mich.
5. Report of the Committee to Consider the Grading and Classification of Nurses. Miss Charlotte A. Aikens, Chairman, Editor *Trained Nurse and Hospital Review*, Detroit, Mich.
6. Report of Committee on Hospital Finance and Cost Accounting. Miss Lucia L. Jaquith, Supt. Memorial Hospital, Worcester, Mass.
7. Correlation of Hospital Diet. Miss Grace McCulloch, Dietitian, Peter Bent Brigham Hospital, Boston, Mass.

WEDNESDAY, JUNE 23, 1915.

Morning Session, 10 a.m.

1. Method of Rating Professional Men for Hospital Appointments, for Promotion and for Hospital Reports. Robert L. Dickinson, M.D., Brooklyn, N.Y.
2. Little Things that are Big Things in Hospital Management. Robert J. Wilson, Director, Health Department Hospital, New York City.
3. The Hospital Superintendent and the Architect. Mr. Warren C. Hill, Architect, Kendall, Taylor Co., Boston, Mass.
4. Some Apparently Accepted Hospital Units. Henry M. Pollock, M.D., Supt. Norwich State Hospital, Norwich, Conn.
5. Question Box.

WEDNESDAY, JUNE 23, 1915.

Afternoon Session, 2.30 p.m.

Joint Meeting of American Hospital Association with American Nurses' Association, at Greek Theatre, Berkeley, Cal.

WEDNESDAY, JUNE 23, 1915.

Evening Session, 8 p.m.

1. Modern Hospital Illumination. David Crownfield, Pettin-gill, Andrews Co., Boston, Mass.
2. The Possibilities of Future Development in the Service Rendered by a Hospital to the Community. A. R. Warner, M.D., Supt., Lakeside Hospital, Cleveland, Ohio.
3. State Aid to Private Charitable Institutions. W. H. Walsh, M.D., Medical Superintendent, The Children's Hospital, Philadelphia, Pa.
4. Where Should the Housekeeper for the Small Hospital be Taught and Where Trained? Miss Emma A. Anderson, Supt., New England Baptist Hospital, Boston, Mass.
5. The Relation of a Children's Department in a Teaching Hospital to Children's Institutions of the City or State. William P. Lucas, M.D., Professor of Pediatrics, University of California, San Francisco, Cal.

THURSDAY, JUNE 24, 1915.

Morning Session, 10 a.m.

1. The Question of Efficiency and Simplicity in Hospital Records. Edward Martin, M.D., Professor of Surgery, University of Pennsylvania, Philadelphia, Penn.
 2. Clinical Records in Relation to Teaching and Research. A New Plan to Promote Conservation and Utilization of Material. Eugene S. Kilgore, M.D., Instructor of Medicine, University of California Hospital, San Francisco, Cal.
 3. Heating, Ventilation and Power Plants of Hospitals. Mr. Dwight D. Kimball, Consulting Engineer; President, American Society of Heating and Ventilating Engineers; Member of New York State Commission on Ventilation, New York City.
- Discussion by Mr. O. H. Bartine, Supt., Hospital for Ruptured and Crippled, New York City.
4. For the Greater Success of the Hospital. George L. Perusse, M.D., Supt. Michael Reese Hospital, Chicago, Ill.
 5. Efficiency and Progress in Hospitals. Mr. Howell Wright, Supt. City Hospital, Cleveland, O.

6. Report of Committee on Hospital Information. Dr. Winford H. Smith, Supt. Johns Hopkins Hospital, Baltimore, Md.

THURSDAY, JUNE 24, 1915.

Afternoon Session, 2.30 p.m.

1. The Building of the Hospital. Construction. Mr. Oliver H. Bartine, Supt. Hospital for Ruptured and Crippled, New York City.
Discussion by Mr. Dwight W. Kimball, Consulting Engineer, President, American Society of Heating and Ventilating Engineers; Member of New York State Commission of Ventilation, New York City.
2. Medical and Surgical Efficiency in General Hospitals. Fred-eric A. Washburn, M.D., Administrator, Massachusetts General Hospital, Boston, Mass.
3. Engine Room Economics. Thomas Howell, Supt. New York Hospital, New York City. Mr. Phillip Murray, Engineer, New York Hospital, New York City.
4. Contemporary Mistakes in Hospital Construction. John A. Hornsby, M.D., Editor *Modern Hospital*, Chicago, Ill.
5. Report of Committee on Constitution and By-laws. Mr. Richard P. Borden, Chairman, Fall River, Mass.
6. The Company Hospital. R. W. Corwin, M.D., Minnequa Hospital, Pueblo, Col.

THURSDAY, JUNE 24, 1915.

Evening Session, 8 p.m.

1. The Need of Pay Clinics for Persons with Incomes from \$900 to \$3,000. Richard C. Cabot, M.D., Massachusetts General Hospital, Boston, Mass.
2. Care of Cases of Mental Disease in General Hospitals. Henry M. Hurd, M.D., Secretary, Johns Hopkins Hospital, Baltimore, Md.
3. Report of the Committee on Out-Patient Work. Michael M. Davis, Jr., Ph.D., Boston Dispensary, Boston, Mass.
4. Report of the Committee to Consider Suggestions in Dr. Howell's Address Last Year. Dr. Robert J. Wilson, Director, Health Department Hospitals, New York City.

FRIDAY, JUNE 25, 1915.

Morning Session, 10 a.m.

1. Hospital Efficiency. Mr. Richard Waterman, Secretary, Committee on Efficiency, Philadelphia Medical Society.
2. Purchasing Hospital Supplies. Louis A. Burlingham, M.D., Asst. Supt., Peter Bent Brigham Hospital, Boston, Mass.
3. A Few Hospital Problems and Their Solution. J. McLean Moulder, M.D., Supt., Methodist Hospital, Indianapolis Hospital, Indianapolis, Ind.
4. Fire Protection and Prevention in Old Hospitals. John M. Peters, M.D., Supt., Rhode Island Hospital, Providence, R.I.
5. Medical Social Service Department Problems in a State University. Louis Morrow, M.D., University of California, San Francisco, Cal.
6. Interdependence Between Hospital and Outside Work. Richard M. Bradley, Thomas Thompson Trust, Boston, Mass.

The afternoon session on June 25th will be devoted to Committee reports.

The Royal Edward Institute, Montreal

We recently received the fifth annual report of The Royal Edward Institute, 47 Belmont Park, Montreal. As our readers are aware, this splendid institution is "for the study, prevention and cure of tuberculosis." The report contains a photo of the late Col. Burland, the founder of the institute and the President of the Canadian Association for the Prevention of Tuberculosis. The pamphlet is most interesting and gives a full account of the work being done.

War Hospitals

The Difference between a General and a Base Hospital

The position of a General Hospital on the line of communication is about two-thirds of the distance between the actual firing zone and the base.

Intervening between it are the following units: The Regimental Surgeon—his duties are to render first aid to the unfortunate members of his regiment. The wounded are then carried by means of the Regimental Stretcher Bearers to a position of safety, known as "Aid Posts," and at these specific points they are left and the regimental surgeon returns to his regiment. The wounded are then transported by means of the Stretcher Bearers belonging to the Field Ambulances, and are carried by means of transport to the dressing station of this unit where the injured are carefully examined and the more serious cases receive attention.

They are then passed on to the clearing hospital, which is usually some building requisitioned for that purpose. As this station is only maintained for the purpose of distributing the wounded they are therefore, detained there as short a time as possible, consequently no beds are provided.

Such wounded as need immediate attention are then carried by means of transport, such as motor ambulances, etc., to the nearest rail head, whence on special ambulance trains they are sent to the next hospital, known as the Stationary Hospital, which has a capacity of about 200 beds.

This Stationary Hospital is complete in every respect, and in it such cases are treated as are likely to be returned to the firing line again in a comparatively short space of time; but such cases as would require serious operations and longer detention are sent forward by rail to the nearest hospital, known as General Hospital. This hospital has a capacity of five hundred and twenty beds—twenty of these being reserved for officers. This unit is usually placed in some large building acquired for this purpose, and the equipment is such as is to be met with in any first-class civil hospital.

This General Hospital is also supplied with tent equipment so that if circumstances and conditions prove satisfactory, the whole unit would be under canvas. From these facts it must be realized that the equipment carried by such a unit as this is enormous. The personnel consists of twenty-one officers, made up of surgeons, physicians and specialists; and amongst this latter group may be mentioned an orthopedist, a neurologist, a radiographer, a sanitary officer, an oculist, an anesthetist and dentist.

The patients from this hospital as soon as possible are sent either by rail or boat to what is known as a base hospital, which is very far removed from the scene of action.

Such base hospitals in the present campaign are, so far as the British forces are concerned, situated in England, and it is here that these brave soldiers convalesce. They are transported to England by means of hospital ships, which are so arranged as to accommodate over two hundred patients and with each ship is a personnel of surgeons and nurses to take care of the wounded during their transportation.

Cliveden Hospital

Sixty Canadians in this hospital are now making rapid recovery from their wounds, under the influence of skilful treatment, careful nursing, and the splendid air. The hospital is crowded to its capacity with three hundred and twenty-two patients.

Construction work on the new building is proceeding rapidly. This will provide additional accommodation for six hundred patients. The new structure is, of the hut style, is to be covered with asbestos sheeting, and will have steam heat, electric light, hot and cold water, and other hospital conveniences. There will be four wards, a big administration building, a stores department, etc. The staff will be increased to forty-nine nurses, twenty-five officers, and three hundred orderlies.

The following conditional Red Cross nurses left London on May 8th for Malta; Miss Adams of Grenville, Sask.; Miss Jacobs, of Toronto; Miss Bolster, of Regina, Sask.; Miss Dixon, of Hamilton; and Miss Aikman, of Winnipeg.

The Woman's College Hospital

The Woman's College Hospital and Dispensary Board have purchased a very suitable property at 125 Rusholme Road for the extension of their hospital work. Extensive alterations have been made, including thorough overhauling of the heating plant, the installation of the Nurses' Silent System. There will be two public obstetrical wards—on the top floor. The roof and outside walls of these have been lined with linofelt, to insure coolness in summer, and extra warmth in winter. The hospital will accommodate twenty-one patients (public, semi-private, and private). It is anticipated that it will be opened early in June. The dispensary work will be carried on for the present at 18 Seaton Street.

A BATH ROOM SCALE FOR SALE

Any hospital desiring to purchase a new bath room scale that has never been used can obtain full particulars from THE JOURNAL. It can be bought for one half of the list price.

PHYSICIAN WANTED—HOSPITAL APPOINTMENT

A physician is required immediately to fill the position of Medical Superintendent at the Emery Hospital, Anand, Gujerat, India. Anand is on the main line between Baroda and Ahmedabad. The Emery Hospital was established by Dr. Andrews about twelve years ago as a small dispensary and dressing-room in his bungalow. It was named after Miss Emery, who founded it in memory of her sister and 1st ward after its donor, Mrs. Pennell, the mother of Dr. Pennell, of Bannu. The Hospital at present has accommodation for forty in-patients and the work is growing daily. The applicant must be a Christian and interested in Foreign Mission work. Full particulars on application to Colonel Gaskin, Salvation Army headquarters, Toronto, Ontario.

Obituary

THE LATE DR. W. O. MANN

Dr. William O. Mann, President of the American Hospital Association and superintendent of the Massachusetts Homeopathic Hospital of Boston, died at the above hospital, April 9th, after a short illness of less than a week. He was operated upon for an abdominal trouble and his chances of recovery were considered very good until his condition became complicated by bronchial pneumonia.

Dr. Mann was one of the best-known hospital superintendents in this country and was appointed president of the American Hospital Association at its last meeting held in St. Paul, Minn., in August.

The work of preparing the programme and arranging the details of the American Hospital Association to be held in San Francisco next June, added greatly to the labors of Dr. Mann during the past year. In addition to his usual duties as hospital superintendent, he had been engaged in planning the construction of a new building for the Maternity and Out Patient Departments of the Massachusetts Homeopathic Hospital. Altogether the year had been an unusually strenuous one for him.

Dr. Mann was 45 years of age. He graduated from the Boston University School of Medicine in 1892. During the next few years he held an appointment on the staff of the Westboro (Massachusetts) State Hospital, and from there went to Fergus Falls (Minnesota), as assistant superintendent of the State Hospital for the Insane.

He returned to Boston in 1899 to become superintendent of the Massachusetts Homeopathic Hospital. During his sixteen years of service there, he developed and enlarged the main hospital and in 1908 supervised the erection of a new building for contagious diseases in connection with the hospital. This

building, located at Brighton, some three miles distant from the main hospital, is known as the John C. Haines Memorial Building.

In 1910 the Robert Dawson Evans Memorial Building for clinical research and preventive medicine was built under Dr. Mann's direction.

Dr. Mann's death will prove a great loss to the American Hospital Association. He has been actively interested in promoting the usefulness of the association from its inception, giving generously of his time on important committees. During the past three years he has served on the committee on grading of nurses, a subject which he considered of great importance, and one involving the welfare not only of the sick committees but of all hospitals as well in the United States and Canada.

Book Reviews

Notes on Dental Surgery and Pathology, with over 150 illustrations. Interleaved with blank pages for the reader's own notes and drawings. By T. W. WIDDOWSON, Licentiate in Dental Surgery of the Royal College of Surgeons, England; Late House Dental Surgeon to the Liverpool Dental Hospital; Contributing Editor to *Oral Health*, Toronto, Canada; Author of "Notes on Dental Anatomy and Dental Histology (a Pocket Tomes)." "The Care and Regulation of Children's Teeth," etc., etc. Published by John Bale, Sons and Danielsson, Ltd., Oxford House, 83-91 Gt. Titchfield Street, Oxford Street, W. London. Price 10s. 6d.

Dr. Widdowson's *Notes on Dental Surgery and Pathology* are very concise. There is no effort to hide the meaning, or lack of knowledge by verbosity. What is known of the subject, the author tells, and where doubt exists the different opinions are given in plain and concise language. The following statement of the contents gives some idea of the subjects covered. The writer first deals with Deciduous Dentition, causes, care and treatment, etc. Then follows a chapter on the permanent teeth, followed by other chapters on disease affecting the teeth and surrounding parts, as Inflammation, Caries, Disease of the Pulp, Treatment and filling of Root Canals; and of the Alveolar Periosteum, Gums and Mucous Membrane. Chapter II deals with Salivary Calculus, which is followed by others on Odontomes, Odontalgia and Neuralgia, Empyema of the Maxillary Antrum, Necrosis of the Jaws, Fractures of the Jaws, Dislocation of the Temporo-Mandibular Joint, Closure of the Jaws. Chapter XIX to the end deals with affections that may arise from dental neglect, as Swelling about the Jaws, Ulcers of Tongue. Some space is devoted to tooth extractions and accidents that may follow, and the subject of cleft palate is not neglected.

The section on "The Treatment and Filling of Root Canals" is up to date. The author first gives attention to the forms of root canals, and the difficulties to be encountered from abnormally constructed roots. In this section the treatment of septic root canals is considered under the section treating of extirpation of the pulp. No adverse criticism can be offered to the method of treatment of septic root canals except to suggest that, instead of the first step being to apply the rubber dam, the cavity should be washed out with water, and the decayed cavity cleared as well as possible by instrumentation. The tricroso-formalin medication is advocated, and the method of procedure clearly outlined. The method of root canal filling is also taken up, and although the author recommends gutta percha, he also gives directions for using other materials with their advantages and disadvantages. The section concludes with a consideration of other medicaments, besides tricroso-formalin for treatment of putrescent pulps.

The volume is highly recommended to those who wish to review their acquaintance with this subject up to date.

Social Work in Hospitals, a Contribution to Progressive Medicine. By IDA M. CANNON, Head Worker, Social Service Department, Massachusetts General Hospital. Survey Associates, 105 East 22nd St., New York.

As its title indicates, this is a volume dealing with that vast new conception of the hospital's responsibilities in its relation to the social needs of its patients as well as the larger social life of the community. It is one of the Russell Sage Foundation publications, and is dedicated to Dr. Richard Cabot, "whose insight, constructive imagination and fearless pioneer spirit have been the chief factor in starting and bringing to its present status in this country organized hospital social service."

The chapter headings are explanatory of the subject-method of the book. The Beginning of Hospital Social Service; Medical-social Problems, Basis of Treatment; Organization; Work-

ers; Future of Hospital Social Service, etc. In each of these the writer speaks, not only from an extended personal experience, but also from that of many able co-workers; so that the volume is a summary of expert knowledge gained in the decade since the inception of the movement.

The value to the general public of such publications as this lies in their absence of technical phrasing. Their interest is thus not confined to the medical sociologist or the professional worker along either of these lines. The lay student can read them with understanding and thereby gain thoughtful stimulus on one of the most progressive and far-reaching of to-day's movements. This book should take its place in all hospital and college libraries; also upon the bookshelf of every physician and social service worker.

The Tuberculosis Nurse—her functions and qualifications. By ELLEN N. LA MOTTE, R.N., graduate of Johns Hopkins Hospital, former nurse-in-chief of the Tuberculosis Division, Health Department of Baltimore. Introduction by Louis Hamman, M.D., Physician-in-Charge, Phipps Dispensary, Johns Hopkins Hospital. New York: G. P. Putnam's Sons.

It is a great pleasure to read a book written so cleverly about a place and a campaign with which one is already quite familiar. It is like meeting a good friend. The Johns Hopkins Hospital, by one of its endowments, fitted up the large Phipps Dispensary for Tuberculosis patients to meet the growing service of that portion of the general clinic. In time, the social duties of the nurses followed the patients into their homes. Now, the "spit" nurse, as the New York gamin calls her, is as well known on the streets as if she were a Sister of Charity.

A fair way to criticize such a work as this is to set down what you think would be desirable qualifications and duties to fill the bill; you are then impressed with the necessity and importance of the many details you left out, that you find upon "reading the right answer."

The subject is very fully dealt with, in equity towards doctor, nurse, patient, and political systems. It is a summary

of all the good points and a warning against the mistakes made by the nursing body over which the authoress was chief. It gives in minute detail most practical directions about every branch of the work as to records, inspection, patients' occupation, disinfection, nurses pay and vacations, method of securing appointment, etc.

The question of how far the nurse shall co-operate with a physician who does not measure up to *her* standard is a delicate one. Miss La Motte advises that the nurse do her duty according to the teaching of her school; which may mean, overruling the physician-in-charge. She should not do this, however, in such a way that either patient or physician will know it, that is, generally, not at all. Where an A1 school with A1 standards send out A1 nurses into the homes of the poor, they have always shown themselves rather dictatorial to those less well-informed. But they need not carry the patients' burden so far as to scare him or bulldoze him. Pressure should be tactfully applied, when the doctor is delinquent, through the Board of Health, an impersonal body, if relatives cannot be persuaded by gentle hints and insinuations. Let things halt for a little while. Every day in our life brings a kaleidoscopic change of conditions, and the very obstacles that annoy a nurse may pass away.

This book should be on the shelves of every Training-School Library.

The Care of the Sick Room. By ELBRIDGE GERRY CUTLER, M.D. Cambridge University Press.

This small volume of fifty pages, one of the Harvard Medical School publications, is a pocket manual of the title-subject, valuable to both the professional and the home nurse.

Full of practical points concerning the requisites of the sick room and the simple, home-made methods of carrying out the same, every page is readable and easy of understanding. It is concise, simply phrased and easy of understanding, and can be recommended as a valuable manual both for the hospital and the home.

A Clinical Manual of Mental Diseases. By FRANCIS H. DERCUM, M.D., Ph.D., Professor of Nervous and Mental Diseases, Jefferson Medical College, Philadelphia; Consulting Neurologist of the Philadelphia General Hospital; President of the Philadelphia Psychiatric Society; Ex-President of the American Neurological Association and of the Philadelphia Neurological Society; Foreign Corresponding Member of the Neurological Society of Paris and of the Neurological and Psychiatric Society of Vienna; Member of the Royal Medical Society of Budapest, etc., etc. Philadelphia and London: W. B. Saunders Company. 1913.

Professor Dercum in this work has presented the clinical manifestations of the various forms of mental disease as they will appear to the general practitioner, and his aim is rather to instruct and qualify the student to practically direct the management of mental illness than to represent the academic doctrines and controversies. He considers insanity in its relation to the prominent epochs of life, as puberty, adolescence, adult age and senescence, and also in its relation to the various diseases of the visceral organs, physiological conditions, as pregnancy and lactation, and to intoxications and disorders of metabolism. The author also has a very interesting account of insanity by contagion which is rarely mentioned in works on this subject, and his observations are helpful and sound. "The mystic paranoic," he says, may be "a man or woman of powerful personality, of force, of natural eloquence and of convincing manner. Under such circumstances he not infrequently secures a following, and one too that may grow to huge proportions. One need hardly mention the divine healers who arise in every age and in every country, nor speak of those who actually found new faiths and creeds. Mystic paranoia is a danger that is real, grave and insidious. The unknown, the mysterious, the occult inspire awe and dread; they also weave a hypnotic spell, they bind in hopeless impotence, chain in blind fascination the simplest workings of the mind. The everyday facts of life and of existence are denied and absurd delusions substituted. Realities are hallucinated away and replaced by the intangible figments of mental disease. The

communicated madness so arising may become epidemic and may last for centuries."

The chapters on the Psychologic Interpretation of the Symptoms and on treatment are excellent, and altogether the volume of a little over four hundred pages will afford an interesting and reliable guide to any member of the profession who may acquire it.

N.H.B.

Selected Addresses—on subjects relating to Education, Biography, Travel, etc., by JAMES TYSON, M.D., LL.D., Professor of Medicine *Emeritus*, University of Pennsylvania. Philadelphia: P. Blakiston's Son & Co. Price, \$1.75.

In this volume Dr. James Tyson has presented to the Profession a series of addresses of the greatest interest. These addresses include such subjects as Memoir of William Pepper, M.D.; Memoir of Albert Holmes Smith, M.D.; Requirements of a Modern College Education; The General Practitioner; Hospital Organization; The Trained Nurse, and a Review of the Progress of Medicine during the last half-century, 1863 to 1913. The book is one that should be in the hands of every physician, and makes most interesting and instructive reading, helping to wile away an evening hour.

The Invalid and Convalescent Cookery Book. By ALYS LOWTH. Longmans, Green and Co., London. 1s. 6d. net.

This book, of about 120 pages, is in binding suitable for kitchen wear, and in good clear type. It is quite up-to-date in its information about the latest kinds of utensils, such as the Thermos flask. If an invalid must have a diet from which certain elements are to be banished, the nurse will have to possess a knowledge of dietetics independent of this book, since it simply classifies the recipes into groups according to their kind, soups, entrées, game, etc., whereas one might work more easily if it were arranged as follows: pure proteids, pure carbohydrates, a well-balanced diet, a salt-free diet, etc. Otherwise, the subject matter is good, and there is a very great deal of sound wholesome advice interspersed throughout.

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